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Mortensen School of Photography

Laguna Beach, California

CAMERA CRAFT

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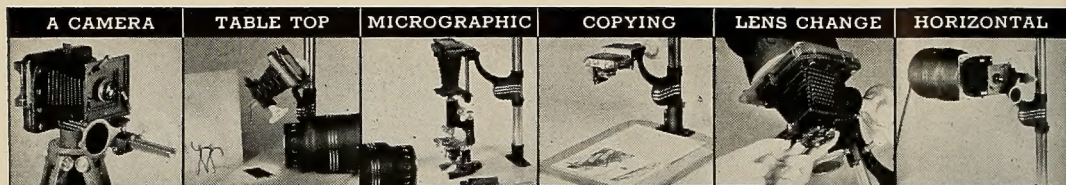
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BY EDMUND W. LOWE, Ph.D.



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FROM YOUR DEALER OR

CAMERA CRAFT PUBLISHING CO.

425 BUSH STREET

SAN FRANCISCO, CALIF.



"Going to Market"

William Mortensen

Portrait Procedure

William Mortensen

Part II

LAST month we considered some of the important preliminaries to a portrait sitting. We discussed the general set-up: the atmosphere of the work room (business-like but unalarming), accommodation for the sitter (a backless revolving stool), type of lighting (Basic or Modified Basic). We mentioned also the first steps with the sitter (adjustment of costume and make-up), and methods of dealing with certain sitter complexes (hysteric and cataleptic types). This month we will go on from there. We will assume that the model, cleared of all complexes and excess make-up, awaits us, sitting before the camera on a backless stool, under a Basic Light.

One peculiar circumstance may be noted before we get under way. Last month we left Doris sitting in front of the camera. But when we returned this month, we found Mollie awaiting us (Figure 1). Just one of those unaccountable things that make photography fascinating. So we will carry on with Mollie as though nothing had happened.

The starting point of nearly all portrait sittings is the pose shown in Figure 2—a three-quarter angle with the model turned to her right. About eighty per cent, I should say, of photographic portraiture consists of slight variants of this stock pose. It is a little more convenient to have the model turn to the right, rather than to the left, because in this way you are able to work with the front lighting unit a bit to the left of the camera* and to operate the cable release with the right hand. This is a good conservative arrangement of the head, showing the principal planes of the face and characteristic qualities of the features to good advantage.

Two important requisites of the pose shown in Figure 2 should be noted. In the first place, the model should *sit up straight*, the back firm without being stiff. The very act of straightening up in this way will help give assurance to a timorous sitter. Secondly, the model should *lean slightly*

*Compare diagram in Pictorial Lighting, page 29.

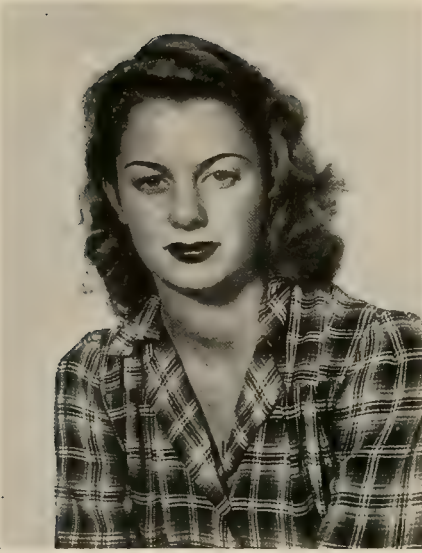


Figure 1. This is Mollie.

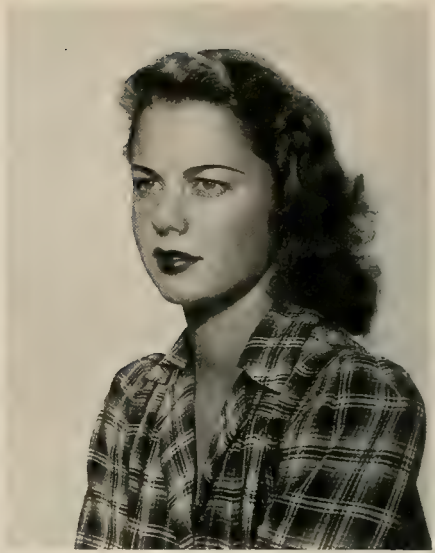


Figure 2. The basic pose.

toward the camera. The latter adjustment is particularly necessary when a lens of short focal length is used—which is the type I prefer. Unless the adjustment is made, the upper part of the face seems to recede slightly and the sitter appears to lean away from the camera.

The stock pose should be arrived at briskly and matter-of-factly. In dialogue form, the procedure might go something like this: “Will you sit here, please. Sit a little straighter. That’s better. Now turn your whole body a little to the right. There. And lean slightly towards me. Not too far. That’s very nice indeed. Hold it.”

And at this point, the photographer must, without further palaver, *take a picture.* Good or bad, he must take it. And, even as he takes it, he must praise it. This formula is essential to a successful sitting. Such quick action and ready approval benefits the sitter’s morale in at least two ways. First, it reassures her that she is not stupid—for she got the photographer’s idea right away. Second, it makes it clear to her that *her* contribution to the picture is important.

At this stage, it may become apparent that the sitter’s skin is too dead for the best photographic representation. Snappy high lights on the skin are required, particularly when a Basic or near-Basic Light is used. A normally oily skin will supply these high lights, but most make-ups are too dull and flat. It is often necessary, therefore (especially with women sitters), to touch up the high lights with a mere trace of cold cream. The cream should be applied only on the protuberances nearest the camera—the brow, the cheek bone, the tip of the nose, the chin. Figure 3 shows the points touched. There should, of course, be no hint of greasiness: only the smallest amount of cream should be used, and the area covered should be no larger than the finger tip with which it is applied.

We have thus established the stock pose for the sitter; we have taken a picture of her; we have also, if we needed to, touched up her facial high



Figure 3. Cold cream to accentuate high-lights.

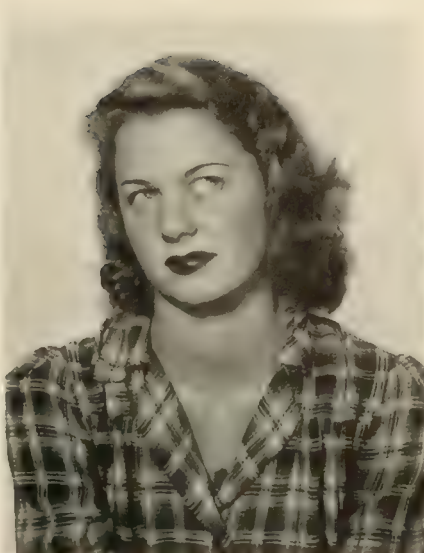


Figure 4. The barefoot formula.



Figure 5. Posing by main strength.



Figure 6. Photographer may correct this.

lights with a trace of cold cream: we are now ready to go on with the sitting. The sitting proper will consist of a series of slight modifications proceeding out of the stock pose (Figure 2). In going through these modifications, the photographer will, if he is wise, shoot a large number of exposures.

Steering the sitter through this series of poses is a touchy process. Every photographer will, as a matter of course, create his own methods. There are, however, two general DONTs that must be emphasized at this



Figure 7-A

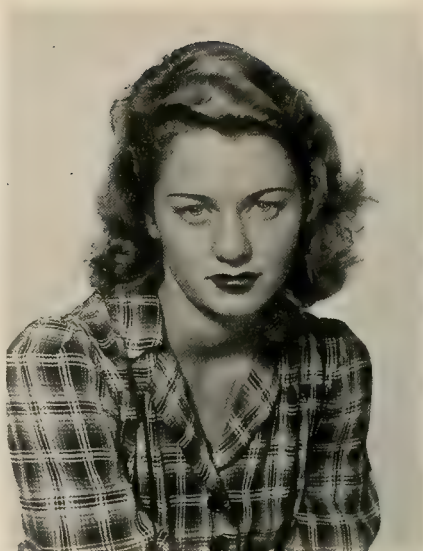


Figure 7-B

point, which should be written large in the conscience of every portrait photographer.

The first of these prohibitions is this:

**DON'T TRY TO GET A POSE OR EXPRESSION
FROM A SITTER BY ASKING HER TO EVOKE
A MOOD.**

We touched on this matter several months ago when we described what we called the "Hidden Soul School" of studio procedure. It is possibly permissible to play Debussy to your sitters, if you must, in order to sooth their jangled nerves; but spare them your prose poems. The sort of thing I mean runs somewhat along these lines: "Now Miss Smith, I want you to think of a beautiful green meadow, full of flowers with the dew heavy upon them. The early morning sun shines from a heaven of clear blue, and sparkles on the dew drops. The air is brisk and sweet-smelling. You stand at your open casement. It is good to be alive. With a glad cry, you step over the sill in your bare feet and run across the dew drenched meadow."

This formula is supposed to evoke a mood of simple child-like joy and an expression to match. Now, it probably happens that the photographer has only the most cordial of feelings toward dew-drenched meadows. So, victimized by verbal auto-intoxication, he imagines he is getting results when he isn't. For Miss Smith (Figure 4) once stepped on a snake when roaming in a meadow. So the hint of running barefoot in the grass does not strike a happy note with Miss Smith.

And this is the second of the prohibitions:

**DON'T TOUCH THE SITTER IN
ORDER TO ADJUST HER POSITION.**

There are still some photographers who, lacking patience and command of the English language, simply lay hold of their sitter and lift her chin, turn her head, depress her elbow, etc., instead of telling her to do these

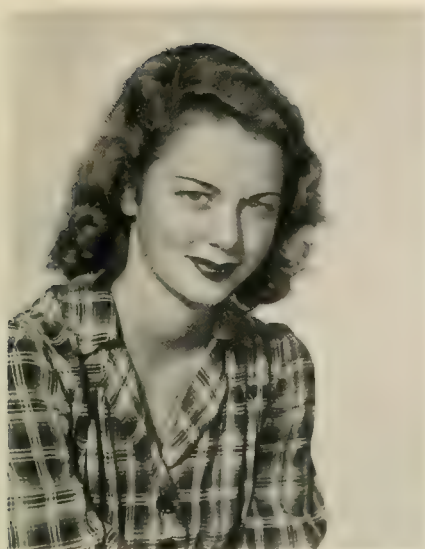


Figure 7-C



Figure 7-D



Figure 7-E

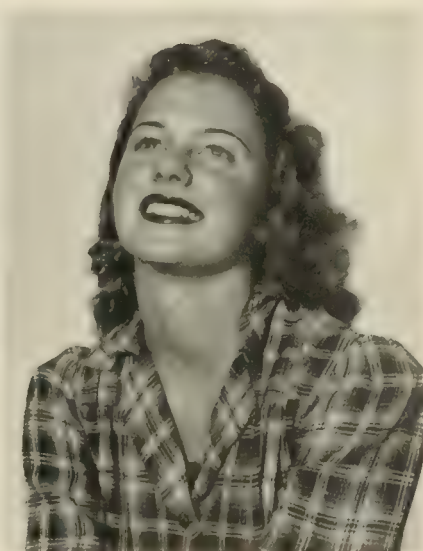


Figure 7-F

things. This sort of posing by main strength usually produces very bad results. The situation shown in Figure 5 may be a little exaggerated, but that's the way it feels to the sitter. There are at least two factors that contribute to the bad results secured by this procedure. In the first place, the sitter, if she is a person of any discrimination at all, naturally resents being mauled about like a sack of flour. The resentment will show itself in her expression. In the second place, this purely mechanical adjustment inevitably leads to stiff and artificial posture. The human body is not a

jointed doll, and cannot be treated as such. Movement in one part of the body naturally calls forth compensating readjustments in other parts of the body. But these essential compensations are lost when the sitter is pulled and hauled into position piecemeal.

The general rule in posing sitters, therefore, is: Hands Off. Exceptions may be noted only in the case of small corrections that the sitter cannot readily make for herself. A lock of hair may pop out, for example (Figure 6), or a lapel may be mussed. Such corrections should be made quickly, and with as little fuss as possible.

The fact that the sitting consists of a *series* of poses must be borne in mind by the photographer, and should be impressed upon the sitter also. Unless she is warned in this respect, she is apt to relax and break things up completely after each exposure. So observe a reasonable continuity in proceeding to improvise upon the theme of the basic three-quarter pose (Figure 2). Don't for example, leap from a full-face to profile and back again, or from staid portraiture to a toothy glamour shot.

Obviously, no absolute formula of procedure may be indicated for the sitting. One pose naturally suggests and flows into another. Keep your eyes open. Usually a pose is better and fresher when it is first assumed than when it has been fussed over for a while. If a pose seems to have gotten hard and arbitrary from too much direction, let the sitter break the pose and return to her own version of it.

Above all, *keep things moving*. Never, NEVER, let the sitter feel that you are at a loss. If you are momentarily stumped, don't, for God's sake, let the sitter know. Fake a few shots, or wilfully waste a few, if you must, until you get back "in the groove"; but never let things come to a standstill.

As a result of this brisk movement, the sitter—even one that was self-conscious at the beginning—may be stimulated into a bit of experimentation on her own. Some of these original inspirations may be a little alarming, or even ludicrous, at first, but don't discourage her. Praise her ideas instead and, in the course of three or four exposures, gradually calm them down into something usable.

Figure 7, A to F, shows some specimen poses that cropped up in the course of the sitting with Mollie that produced the portrait shown in Figure 8. I used my Leica in this sitting, shooting about four rolls in all; but the six pictures in Figure 7 pretty well indicate the ground that was covered.

Let me indicate briefly some of the flaws that led to the rejection of the proofs reproduced in Figure 7.

- A. Dead, bored expression. Lock of hair awry.
- B. The expression here suggests resentment.
- C. More pleasing than the two preceding, but the chin is tucked in too far, and the glance from the corner of the eye suggests suspicion.
- D. Here we have a smirk rather than a smile. There is confusion of hair, veil and hat.
- E. Another experiment that didn't jell. The expression is of the type generally summarized as "Blah."
- F. A nice expression, but too much so. Angle of head unpleasantly emphasizes length of neck.



Figure 8. Portrait of Mollie.

It is interesting to note that the one chosen for the final version, Figure 8, represents only a slight deviation from the basic three-quarter pose (Figure 2). It not infrequently happens that the best result is secured when the sitter, after a long work-out, is brought back to something approximating the point she started from. But, thanks to the work-out, it proves to be a much fresher and more pleasing thing when she tries it for the second time.

Ice

H. W. Wagner

ICE is what folks, including picture hunters, slip on and fall down on. More than once my camera has required repairs after I have been on a winter hike when the going was "slick." And I haven't forgotten the time the camera was set up on its tripod on a sloping ice bank. During the moment I turned my back for a film holder from the carrying case, camera and tripod disappeared. Two seconds later they were located, completely submerged in the brook. Soon after that spikes were inserted in the tripod feet.

Nevertheless, in spite of difficulties and risks, we find great fascination in the sparkle and architecture of ice. And some day, if persistence endures, we are awarded by that thrill which comes when a real picture ensues.

Ice is where one finds it, from ponds to mountain tops. In search of pictures one should have a hunting nose and an appreciation of mood. He should learn how to recognize and how to treat the emotional appeals of coldness, hardness, solidity, majesty, mystery, suggested motion and the glory of pattern brilliance.

Ponds, lakes and streams afford rhythmic, pulsating bands and curves along their edges. "Streams in Winter" were dealt with in *Camera Craft* of February, 1940. Smooth, clear surfaces are prolific of reflections of trees and other bank objects. Ice harvest provides another opportunity, when the blocks can be caught in attractive formations. There are times when ice may be photographed far from any ground water source, after rain has frozen on snow and created a satiny surface, as in "Frozen

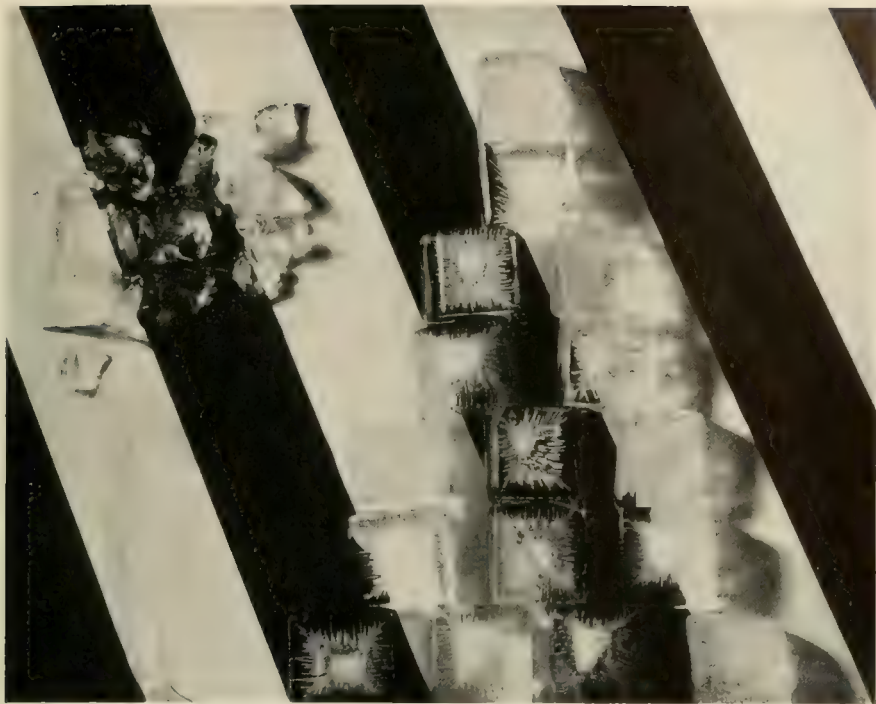


Figure 1. An Experimental Photograph of Ice from the Refrigerator. $\frac{1}{2}$ second at $f:16$ on Agfa Plenachrome Press, one small photoflood at left, no filter, Heliar 15 cm. lens.

Trail." Another possible product of winter rains is "Surface Glare," a swamp detail where slush had formed and then frozen.

Those who have access to shipping wharves in cold climates may combine human interest with the hazards of winter, portrayed by the rigging of vessels encased in ice. One of my haunts is a thirty-foot waterfall in whose vicinity dozens of exposures have been made, including "Ice Jungle." Only a few possess pictorial composition but the variety of subject matter is amazing. Sometimes the falls are open, sometimes crusted over, while the build-ups of frozen spray are always changing. One doesn't have to wait until next winter or next month. He finds a new show every week-end, so long as the thermometer stays sufficiently low.

Seepage and surface flows from banks and cliffs form pillars and sculpture rich in curves, their ripples and odd ornaments scintillating in the sun. Icicles grow into fantastic designs. Those of "Sky Vista" were found along a mountain road and got their expressive cant from a prevailing west wind. I found opportunity to climb that mountain four times early in 1940: each time I either shivered or sweated and each time ice presented another variety of possibilities, as its exposure, form and mood went through frequent transformations induced by the weather.

In Cote's "Sermon on the Mount" we find a rare achievement of majesty and brilliance, the ascension of forms climaxed by the outstanding pillar.



Figure 2. 1/50 second at f:11, Wratten K3 filter.



Figure 3. 1/25 second at f:11 Corning HR yellow-red filter.



Figure 4. "Sky Vista." 1/100 second at f:11, no filter.

Of interest by contrast is the lowly source of the subject, water left running to prevent freezing in a pipe.

The technique of ice photography is similar in some respects to that of snow photography. Some departures, however, are to be recognized. First, ice requires less intense lighting. Because it is more reflective, there is more danger of blocking and flattening the high lights. A hazy sun with its diffuse light is often most propitious. When sunlight is intense one should be extra careful to guard against serious overexposure.

In the case of snow, we might appropriately paraphrase the paint ad, "save the surface texture and you save all." In ice, the camera sees something more than surface. It sees translucence and mysteriously distorted reflections of light and dark. Some photographers are disappointed when they fail to record sharp detail in ice texture. I don't think I have ever seen it in a photograph. Edges outlined against a contrasting background are clean cut, but I have come to believe that sharp detail in surface texture just isn't there. Flat and rounded surfaces, light coming from the interior and halation from reflected high lights are the reasons.

Figure I was made to study detail with all parts of the subject within the focal field. Streamers of bubbles in the "cubes" are shown in fine detail but there is no such detail visible on the surfaces. This illustration also shows the relative influence of light and dark backgrounds. This lesson applies to the outline rather than to the body of the ice, because in nature the ice usually is too thick to permit the tone of whatever is back of it to show through the body.

Depending upon the emotion suggested by the subject, one may capture the charm of high key by using snow for the background or by printing only an ice area with a touch or two of dark accent. A solid dark background produces maximum emphasis, but if a dark background is patched with white snow it will detract from the theme. See how well the darkened sky glorifies the high lighted pillars in "Sermon on the Mount."

Pictures often are found within pictures: consequently one should make close-up examinations for diminutive patterns of beauty easily missed



"Sermon on the Mount"

Roland W. Cote

1/50 (?) second at f:11 on Agfa Finopan in Rolleiflex camera, #2 yellow filter, Champlin 15 developer. Salon prints on Agfa Portrait Enlarging. #135 MQ developer, gold toned to a faint blue.



"Frozen Trail"

H. W. Wagner

1/5 second at f:16 on Agfa Supersensitive Plenachrome, Heliar 15 cm. lens, Wratten K3 filter, hazy sun, 3 p.m. in February.

in a general survey. Viewpoint is all important. One should shoot from various angles if he is not certain of *the* most advantageous one. Five negatives were made of "Ice Jungle" and I've forgotten how many rolls of film Roland Cote told me he used on the assemblage that yielded "Sermon on the Mount." It is my choice of those I have seen but some salon judges have preferred another called "Processional."

Either ortho or pan film is adequate, but the pan variety is more versatile, especially when a red filter is in the kit. Filters are a rational part of the equipment but require judgment in application because the wrong selection can spoil the picture. Experience, careful study of the subject through the filter and exposure with and without the filter are means to the desired end.

A filter is an asset when it darkens a sky to a pleasing degree or assists in rendering desired detail contrast without creating hopeless gross contrast. If color is apparent in the ice, due to stain, refraction or tiny crevices lighted from the blue of the sky, a given filter may either flatten or heighten detail contrast, depending upon the relation of colors. A yellow filter happened to be the one which boosted detail contrast of the ice crust in "Frozen Trail," while the red one was judged to be most helpful in making visible the details of "Ice Jungle." The subject should be viewed through



"Surface Glare"

H. W. Wagner

1/25 second at f:22 on Agfa Supersensitive Plenachrome, Heliar 15 cm. lens, no filter, back lighted by sun at 1 p.m. in January.

the filters available to see which, if any, adds the most emphasis to ripples and glints of high light. Danger from the yellow and red ones is in producing excessive gross contrast between large shadow areas and brightly lighted ice surfaces: when this kind of contrast occurs, printing for the high lights (as should be done) tends to cause any large shadow areas to come blank and harsh. I think a yellow or red filter would have been fatal to "Surface Glare," although a critic might call it "already dead" as a picture.

"Sky Vista" is the victim of our current filter experiment. While your taste may differ from mine, I prefer the print made with no filter. This time the sky was clear and blue enough for the filters to get a "bite." But the bite was too deep in darkening the sky of Figures 2 and 3, subduing the tree branches which provide part of the feeling in Figure 4. Also the high lights on the tree limbs, brought out by the filters, disperse interest by creating competition with the icicles.

All three negatives of "Sky Vista" are from the same roll of Agfa Superpan Supreme film, $2\frac{1}{4}'' \times 3\frac{1}{4}''$, exposed in an Eastman 6-20 Senior camera, with a 10.3 cm. Kodak anastigmat lens. All prints were made on paper from the same package: none were dodged. When the sky of Figures 2 and 3 is printed as light as in Figure 4 the ice comes chalky.



"Ice Jungle"

H. W. Wagner

1 second at f:22 on Agfa Isopan, Eastman Kodak anastigmat 17 cm. lens, Corning HR yellow-red filter, sunlight from left.

Incidentally, all other illustrations which go with this article are from exposures made with the helpful aid of a ground glass focusing screen in the camera.

Just a few words are offered concerning printing. (Printing and print quality are treated at length in my book, "Snow and Ice Photography," published by Camera Craft.) Whatever the key, "print for the high lights" is a slogan which applies emphatically to the present subject, even to the loss of shadow detail, unfortunate as that loss may be. A high degree of contrast should be sought at the same time, giving the paper sufficient exposure to prevent chalky tones in the vital high lights. Dodging, of course, is often of advantage here, to prevent flattening of gradation at both ends of the scale.

Ice hunting is in season every winter and is especially in order during those periods when snow is scarce. The ice is more fully exposed to view then and one can wander further afield unhampered by the labor of breaking fresh snow trails. Joy of discovery and realistic prints which help you keep cool next summer are two of the rewards. If you happen to be a salon bug you know that exhibition pictures of ice really are scarce. When you locate the right pictorial set-up and handle it skillfully, then you have something to interest the Jury.

My Best Lamp

Fred G. Korth

MY best light is sunlight,—but studio lighting is not supposed to resemble sunlight except in one thing: that is, one light and one shadow should dominate in order to give the impression to the casual observer that only one source of light was used.

My best lamp is the Photoflood Spot. It has countless advantages over any other lamp made—and, it must be admitted, a disadvantage. Some photographers call it a candle because of its weak light, but at least with inanimate or still life subjects this is of minor importance. An exposure of 2 to 10 seconds at stop 32 or 45 is not wasting anybody's time



The Photoflood Spot



"Breakfast Tray"

Fred G. Korth

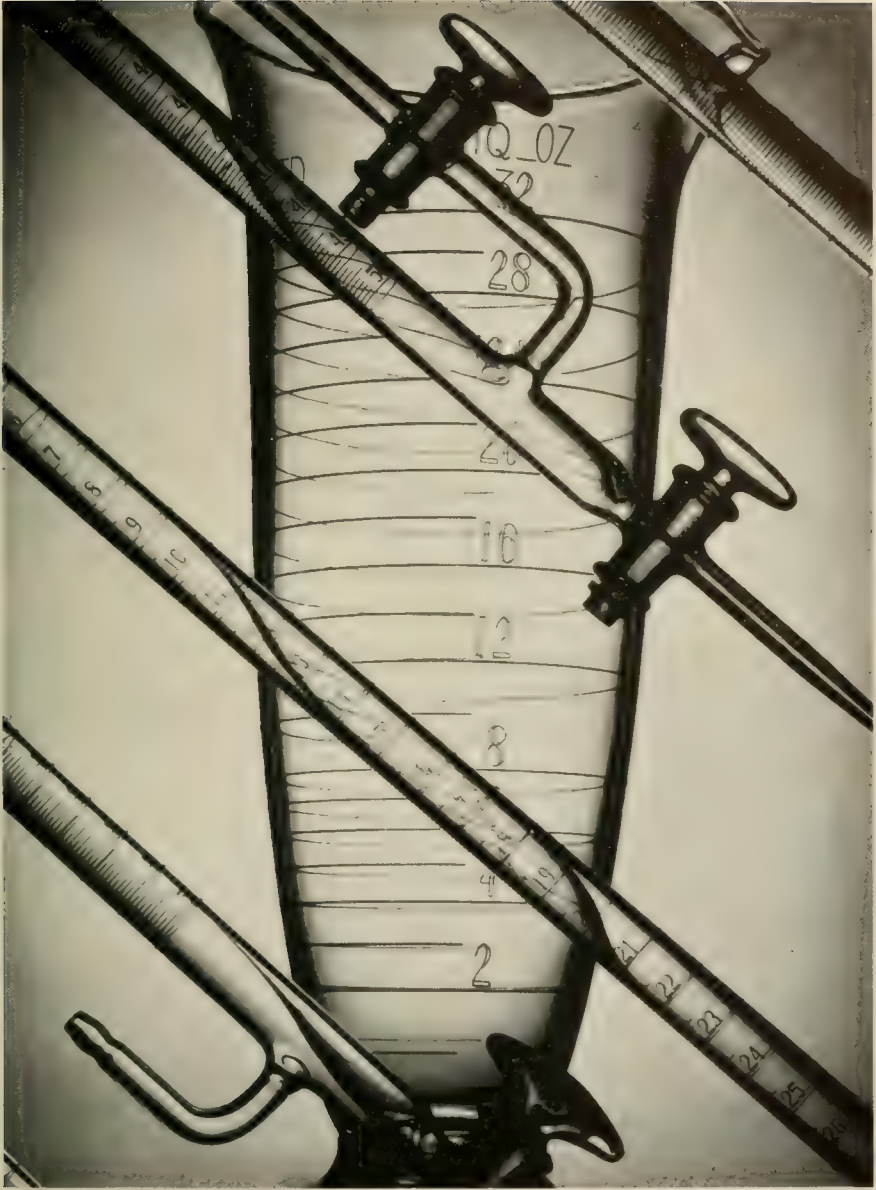
in comparison to the time consumed in setting up the subject and the camera.

But even in portraiture the Photoflood Spot will come in handy for backlighting or highlighting certain planes of the face, in this way helping to add interest to the picture.

Once an engineer from one of the big lamp manufacturing companies, who helped develop the photoflood lamp, gave a lecture before a camera club. He advised everybody to use photofloods for practically all lighting purposes. But when someone asked how the photoflood would work out in a spotlight, he said emphatically that this was the one job it could never be expected to do. The perfect source of light for a spotlight, he remarked, is the smallest one available: the carbon arc.

There was a time in so-called pictorialism as well as in commercial work when every subject had to be repeated in its own sharp shadow somewhere in the background. Every spotlight illumination had to have a sharp outline, here white and there black. Now the style has changed: we don't mind seeing the main subject brightly illuminated and the light falling off gradually all around. We don't miss needle sharp and contrasty shadows.

The photoflood bulb is a large light source because, unlike the clear bulb, its frosted glass radiates light. The larger the source of light the softer a spotlight will work, which is what we want nowadays. Most spot-lamps are made for T-type bulbs and do not center the light perfectly with



"Glass"

Fred G. Korth



"Flower Ring"

Fred G. Korth

photofloods. Only the Photoflood Spot does it. Here is hoping that its makers soon will introduce bigger models, well built with good ventilation, accommodating photofloods No. 2 and No. 4.

At least one Photoflood Spot was used in making each one of the accompanying photographs. The picture "Glass" needed no other light at all. One soft spot on the white background automatically made the glass sparkle, the graduation marks stand out, and darkened the corners of the photograph.

The clarinets were a harder subject. Made of dull black wood and shiny silver, they presented problems of lighting all their own. To bring out the silver keys and avoid reflections and counter-reflections, indirect lighting had to be used. For this purpose a number of white cards and sheets were arranged in a three-quarter circle around the front of the set-up. Lights were directed at these reflecting surfaces only, so that they would not illuminate the clarinets. This type of lighting did not outline the black wood. Here the Photoflood Spot came in: its characteristic soft spot was thrown on the center of the black background. Anticipating the reader's question, it might be explained that two clarinets were standing straight on a board, the other two were hung from a support and the camera was tipped sideways to get the diagonal composition.

Photographing the basket of eggs would have been difficult without the Photoflood Spot. Varying the size of the spot resulted in widely differ-



"Clarinets"

Fred G. Korth

ent effects. The final lighting was the most pleasing of many possible ones. A sharp spot of the old-fashioned type would have accentuated a sharp black circle around the highlighted area. As it was handled, however, a second spot was needed to light the handle of the basket. Note that there is but one highlight on each egg and that the eggs themselves served as reflectors for the shadow portions.

Making the shots of the china flower ring and of the breakfast tray, I used the simplest and most fundamental lighting for still life. A Photoflood



"Eggs"

Fred G. Korth

Spot was placed at a point about opposite the camera. Its beam of light was adjusted to the size of the subject. Then an open reflector light was placed in front of the set-up, low enough to avoid casting a shadow on the platform. This second lamp is needed to lighten up the shadow surfaces.

Let us observe the interesting shadow pattern as well as the illusion of third dimension created by the light from the Photoflood Spot. Without this illusion of third dimension no photograph in general and no still life in particular will go places.

Filters In

Night Photography

C. E. Potter

THE purpose of this article is to illustrate ways and means of handling the extreme contrasts encountered in certain branches of night photography wherein the subject is illuminated by Mazda lamps and fluorescent tubing, but not the former alone. Figure 1 is an example of the type of subject involved.

The need for such control is obvious to anyone who has been plagued by clear film as a substitute for shadow detail, highlights obscured by halation and prints devoid of all snap and crispness. Contributing to this dilemma is the knowledge that a certain minimum of exposure is necessary for the shadows, which minimum will in all probability greatly exceed the maximum allowable for the highlights. One "out" taken is curtailed development which not only fails to solve the problem but gives birth to the remaining headache—lack of contrast between and within any and all areas. What we really want to do is to either increase the illumination in the shadows or decrease the intensity of the highlights, meanwhile maintaining the general characteristics of the existing illumination. Flash bulbs will increase the amount of shadow detail where we can approach sufficiently close to the subject, but their use even in such instances results in altering the character of the subject's lighting—something we may not choose to do for esthetic or other reasons. The remaining possibility is, then, to reduce the highlight intensity. If we can do this it will be possible to not only give sufficient exposure for the shadows, but to develop in a more nearly normal manner with attendant benefits to the final print. This is exactly what we shall do and it can be done very simply and easily by the judicious use of filters where the two types of lighting exist as mentioned above.

Figure 1 shows such a subject, one of violent contrasts indeed. The theatre's name, "Grand Lake," is emblazoned in flaming blue mercury with the embellishments immediately above consisting of red neon with yellow and blue trims—these last two also of mercury. The building itself is illuminated by street lamps and relatively weak concealed floods. The problem, of course, is to show printable shadow detail at E (say) while preventing halation from the lettering K into the black ground I. Inci-

dentally, L is the tubing itself while K is the white ground on which it is mounted. This is shown in greater detail in Figure 2.

The point now, is to illustrate in some definite manner the advantages accruing from the use of filters on such a subject, therefore it is well at the outset to have a clear idea of what is good and what not so good. We know, first, that we must have at least a printable degree of contrast between E and F so that the building may be clearly outlined, therefore the density at F should be as low as possible and with E about .4 or more units (density) higher. The lettering L and the aforementioned embellishments should be absolutely opaque as far as printing them is concerned for these must be a clean, crisp white in the print. Furthermore, the exposure should be such that there is some difference in density between L and K so that the tubing stands out a bit from its ground. (See Figure 2.) This latter condition constitutes a major stumbling-block for if we give sufficient exposure for E, L and K will be hopelessly merged into a solid mass of silver that dribbles over into I (the black ground), a state of affairs known as halation. Hence, a printable density at K will constitute a "good" point. In addition to this, the myriad of lamps on the ceiling over the box-office should be sufficiently clean so that they print as little points of white. Finally, there should be a reasonable degree of contrast between or within both highlight and shadow areas themselves.

I believe that you will agree that this adds up to a fairly stiff set of conditions and it would seem obvious that in order to fulfill them the negative would have to include a fairly high range of densities. This is quite true—at least from my experience—and where high gross contrast does exist, dodging and burning-in must be resorted to in making the print. Keep this in mind for it has a bearing on Table I.

Since we now have some basis on which to judge the merits of a negative, some method must be devised to "picture" one without actually seeing it. Prints won't do if we desire to compare one with another since we have already agreed (I hope) that manipulation is required in order to get the best print from any one negative. This, of course, constitutes a variable, contributing to possible misinterpretation of comparative data, but if we can describe various negatives in terms of numbers, this objection is overcome. Therefore the following procedure was adopted.

Four negatives were made as follows: (1) exposed for the shadows; (2) exposed for the highlights; (3) exposed for the shadows and filtered; (4) duplicate of #3 and "harmonized" after development. Figure 1 was made from this last negative which was dodged, burned-in and otherwise "helped." Various areas were marked as shown (A, B and C, etc.) for reference with corresponding areas in the four negatives, these were measured on a densitometer and the results tabulated in Table I.

Now let us compare this data with our criteria in a preceding paragraph. Relative to contrast between E and F, E is too low in negatives 1, 2 and 3, in fact the amount in #2 (.34) is of no value whatever, therefore all fail in this respect. K, as you will remember, must have a fairly high density, but not so high as to be difficult to print slightly darker than L. This is rather critical, particularly if the print is to be made in a condenser machine (as Figure 1 was). Both unfiltered negatives show a density at K which in my experience has proven to be too high—#1 exposed for the



Figure 1

shadows hopelessly so. #2 is bad enough but even if it were possible to print the highlights successfully, the shadows would be left to the imagination, therefore #1 and #2 fail in both extreme highlights and shadows. What about #3 then? While the shadows are still deficient—although just as good as in #1 and far better than #2—the highlights are just about right (K and L). It is apparent then that filtering has done *some* good. However, we must not overlook the mazdas over the box-office for we still want *them* to print. These being too small to measure, I shall have to ask that you take my word for it that they are too dense in the unfiltered shots and not a great deal better in the filtered one. The fact is that they shouldn't be a bit better in #3 than #1 and #2. In any event, #3 isn't satisfactory as it stands since we want more shadow detail, so that brings us to #4, a duplicate of #3 whose shadows were intensified and whose extreme highlights like the Mazdas, slightly reduced. This is done in one operation by what is known as "harmonizing," a process which I hope to discuss at a later date. Although essential in this particular instance, in a great many cases filtering alone will handle the situation quite adequately.

TABLE I

Area	#1—Unfiltered for shadows 15—f16	#2—Unfiltered for highlights 5—f16	#3—Filtered for shadows 30A—35—f16	#4—Filtered for shadows & harmonized 30A—35—f16
Film base .....	.12	.12	.12	.20
A .....	.82	.62	.78	1.16
B	1.10	.90	1.10	1.40
C	1.52	1.42	1.44	1.70
D .....	.96	.62	.86	1.34
E .....	.56	.34	.52	.90
F .....	.44	.18	.36	.50
G .....	.48	.22	.42	.60
H .....	.48	.26	.48	.74
I	1.15	.82	.86	1.24
J .....	.86	.48	.70	1.10
K	2.16	1.98	1.60	1.80

Having concluded that there is some point to filtering, we are faced now with the questions of how, when and why. In order to answer these, it is clearly necessary to know something of the nature of the subject to be filtered—namely, fluorescent signs. A certain amount of information may be obtained from any text on illumination engineering, but it is far more convincing to get it first hand by the use of a spectroscope. A pocket instrument entirely suitable for this purpose may be purchased from laboratory supply houses for about \$20.00. Whether or not the purchase seems warranted, however, bear in mind that such a device yields only qualitative information. It will not, for instance, tell how strong a certain line in the spectrum is, nor will it indicate relative strengths except in terms of visual brightness—and that, where color is involved, means very little. On the other hand, either the prism or grating variety affords data as to the positions of various lines; which filters will effect them; the various cuts of different filters, etc. For instance, you can see just how sharp the absorption band in the green of a #32 is relative to some other, or whether the cut of your B filter is sharper on the blue side than the #61. Filters



Figure 2

vary surprisingly (unmounted gelatins at least) and the spectroscope affords a quick and convenient means of checking.

As a case in point, let me relate the story behind my eventual purchase of one. Now every photographer knows that a G or K2 cuts blue to a certain extent, but it is not so commonly known that these two filters will do nothing of the sort to the blue light of a mercury arc—mind you, now, I'm speaking of the net intensity of said arc after filtering and not certain portions of its spectrum. Not so long ago I became a shivering, chattering wreck after trying to dim such signs with those filters in the cold night wind. Well, yellow is supposed to cut blue and those signs certainly looked blue to me, but I might as well have whispered sweet nothings to them for all the good a K2 or G did me. Something just wasn't as it should have been so in desperation one of these little spectroscopes was obtained, and then came the dawn! My "blue" sign was not only blue—but violet, green and yellow as well! Even so, much can be learned without this device as will be pointed out later, but meanwhile a description of the spectra encountered would seem to be the next step.

Almost all illumination at night is furnished by Mazda bulbs, so these had best be considered first. All such sources, including photofloods, emit their radiation in what is known as a continuous spectrum, i.e., there is a certain amount of energy radiated at every wavelength between certain limits. To us, the significance of this is that pan film exposed to this radia-

tion behind any filter that passes some portion of the visible spectrum, will, following development, show a deposit. Furthermore, assuming constant exposure time and filter efficiency, this deposit will become heavier as the filters change from blue to red. In short, let us say that the distinguishing characteristic of the Mazda spectrum, in comparison with those to follow, is its continuity.

Now from the term "continuous" spectrum, we infer that others exist that are "discontinuous" and it is just such that are identified with our signs such as illustrated in Figure 1. Such sources radiate their energy in very narrow bands, the number and position of which depend upon the material responsible for the radiation (neon, mercury, sodium, etc.). Between these bands there is no radiation and it is here that we obtain our cue on how to effect control. In other words, in distinction to the statement made in the preceding paragraph, if pan film is exposed to a neon or mercury sign behind *certain* filters passing a visible portion of the spectrum, no deposit whatever will be obtained. Thus, working between these two extremes and with the multitude of filters at our disposal, it is a very simple matter to modify the strength of these illuminants in any degree we choose. To digress a moment and to clear our terminology, these tubes radiate in very narrow bands, which bands are seen in the spectroscope as lines, or images of the slit mounted in front of the instrument. Henceforth then, it will be clear that a line and a discontinuous spectrum are the same thing.

Among the colors to be considered are: Blue (mercury), red (neon), green (mercury), yellow (mercury), white (mercury) and magenta (neon). There are others but these are the most common. In this list, the blue and red are "straight" (undiluted, unmodified, etc.) whereas the other four colors are obtained by coating the interior walls of the tube with various fluorescent materials. The spectroscope reveals the characteristic lines of the exciting medium superimposed upon various continuous spectra according to the nature of this coating.

Taken in the above order, straight mercury comes first. Now when I say "straight," let's not be niggling or too literal about it. The tube undoubtedly contains traces of argon and perhaps other gases to enhance its operating characteristics, but the bulk of it is mercury and we aren't in the least concerned with irrelevant operational details. The type of light emitted is very familiar to anyone who has passed a battery-charging shop and watched the mercury arc. These blue signs like the "Grand Lake" in Figure 1 are the same proposition. The spectroscope discloses a really beautiful line spectrum, the positions of which lines in terms of millimicrons are as follows:

Violet (2)	405.8
Blue (2)	435.6
Green-blue	496
Green	546
Yellow (2)	577.9

Starting with the strongest visually, the order would be: Green, blue, yellow, violet and blue-green. Actinically, the blue might come first and the green, second, although the latter is still mighty strong—by far the strongest visually. This being true, one can well imagine the futility of trying to control it with a G filter, to say nothing of the K2. As for the

filters that *will* control it, they will be discussed a little further along let's keep to the spectra now.

Red neon is perhaps the commonest of all and a very easy one to control. This, as far as we are concerned, contains only red and yellow in a closely spaced series of lines from about 590 to 670 $m\mu$ with the strongest at about 640. The yellow is comparatively weak as is the deep red.

Green is another color seen quite frequently and one subject to modification without too much trouble. All the lines of mercury are present while a strong continuous spectrum is almost entirely in the green, extending only slightly into the yellow and red. In this case, the cut on either side (rate of change) is relatively sharp, in distinction to, say, the magenta tube.

Yellow, containing mercury as mentioned above, is not effectively minus blue since a portion of this line is still visible although diminished in intensity. The continuous spectrum is strong in the green and red as would be expected.

One of the most difficult of the tubes to control is the white. The continuous spectrum is similar to the yellow, but in this instance the blue line gets through in all its glory. About the only vacant space in which to work is between the blue line and the beginning of the continuous spectrum.

Finally we come to magenta with neon as its medium. Knowing the spectrum of neon, it is apparent that the blue portion of the magenta comes from the coating. However, since this particular sample of magenta is somewhat degraded, some green is in evidence although considerably weaker than the other colors.

This gives some idea of what we may expect from these signs in a qualitative sense, but what about the quantitative aspect which, to us, is very important? Just how strong *are* these lines in terms of what an exposure meter might tell us, or how strong is one of the many continuous spectra relative to the lines of the tube's exciting medium? There may be some very simple answer to these questions other than spectrophotometric measurements, but if there is, it has eluded me. Remember that the response of exposure meters, films and human eyes are all different, and anyway, exposure meters are of no value in attempting to measure a small highlight against a black ground a considerable distance away (sign atop a tall building). Of course you can sit down at your desk with paper and pencil, slide rule, integral tables and reams of paper and figure the theoretical response of a hypothetical emulsion exposed through an ideal filter to an imaginary light source—an admirable procedure if you are interested in whys and wherefores—but the answer obtained is still hypothetical. Remember too, that emulsion numbers change, filters change with age, the internal pressure of these fluorescent signs varies with temperature and age with a consequent change in their spectral make-up, so one set of figures today may mean nothing a month hence. As far as I have been able to determine, only practice and experience will yield the correct answers. It is certain, in any event, that only these will give you the "feel" of the thing and enable you to size up a given situation without a multiplicity of aids. I grant you that "practice and experience" are most disappointing substitutes for a shiny new gadget, but after thoroughly broken-

in and suitably mellowed, they serve most admirably and are so much more convenient to carry about with oneself.

Now about the filters. Here, the purchase of Eastman's book on Wratten Filters is definitely a step in the right direction. It contains absorption curves and tabulated data on over 100 different varieties. With this in your possession and whatever knowledge you may have gleaned from the above harangue, you should be able to answer at least in part the question of what filters to use. It will be obvious that in order to control neon, the greens or blues will be necessary—or if mercury is the problem, some filter whose cut starts at the green line (#21) or passes only the yellow ones will furnish the solution. Regarding this last instance, removing the blue lines only with something like a G has very little effect except on the weaker tubes, despite the fact that the blue ones are very strong. These filters may be used singly, in succession or in pairs—the method, as usual, depending upon the individual case, but using them in succession is liable to endanger registry unless they are mounted in optical flats or are of the plain gelatin variety in perfect condition. It also happens that, at times, a pair used simultaneously is indicated in order to pass an extremely narrow band or to “work between the lines.” Just what the factor of the combination will be must be determined by trial and error—be assured, however, that the answer *won't* be found by multiplying or adding the individual factors.

At this point it may be of some use to furnish a list of filters that have been found valuable in this work. I am inclined to believe that this is a wise move on my part since it is so easy to go on a spree—filters being such a lot of fun to buy. You will find the most lovely hues imaginable, and then, too, it imbues one with such a vast sense of importance to possess a whole bagful of filters. You can impress your friends (and confuse yourself) no end and just have a throbbing good time with it all—but they cost 40 cents apiece and not all of us can afford to be important so you might confine yourself to these:

TABLE II

Yellow & Red	Green	Blue	Magenta
15*	11	38	30A
17*	13	43	32
21	40A	44A	
22	40	45	
23A	52	47*	
23	55	48*	
25	56	49*	
28	57A		
29	57		
70*	58		
90	59A		
	59		
	60		
	61		
	62*		
	65*		

*Used infrequently.

You will note the presence of #90, the so-called monochromatic viewing filter. Do not use it as such in this work but rather as a "taking" filter—you'll find it invaluable in certain odd cases wherein *both* mercury and neon are involved.

In an earlier paragraph, it was mentioned that much could be learned in this connection without the aid of a spectroscope. This is what I had in mind: Find a blue mercury sign, or better still, the arc of a battery charger that you know isn't colored in any way, and look at it, first, through the C4(49) which will prove the presence of blue. Next try a #62 to see whether it contains green light. Now view it through a #22 for yellow. Then screen it with either an A or an F and you will find the arc as effectively extinguished as though it had been turned off. Now see if you can predict what would happen if a #45 or, better still, a 45A were used. Here is a cyan filter passing a certain amount of blue and green, and we know from the above experiments that *mercury* contains blue and green the obvious conclusion being that this filter will pass it practically unimpeded. Obvious, that is, if you haven't studied the spectra or the filter's absorption curve! Now look at the tube through it and you will find that "blue" cuts "blue"—a seeming anomaly if there ever was one! The explanation is quite simple and it should convince you that the spectrum from this particular source is discontinuous or of the line variety. For the sake of completeness, the experiment—with suitable filters, of course,—should be performed on all the colors or tubes herein mentioned.

This constitutes the first part of the program—other items including the method of intensification referred to, the relative merits of various films and developers for night work and the inevitable printing suggestions. These, the editor permitting, will be discussed in future issues.

Automatic Rocking Print Washer

Richard W. Hufnagle

ABSOLUTE print permanence is assured only by thorough washing. Brown stains and fading frequently result from the slap-dash washing methods so commonly employed even by serious amateurs. From material costing about \$2.50 a washer may be constructed that is efficient, compact, completely automatic and capable of handling all sizes of prints up to and including 11"x14" in size.

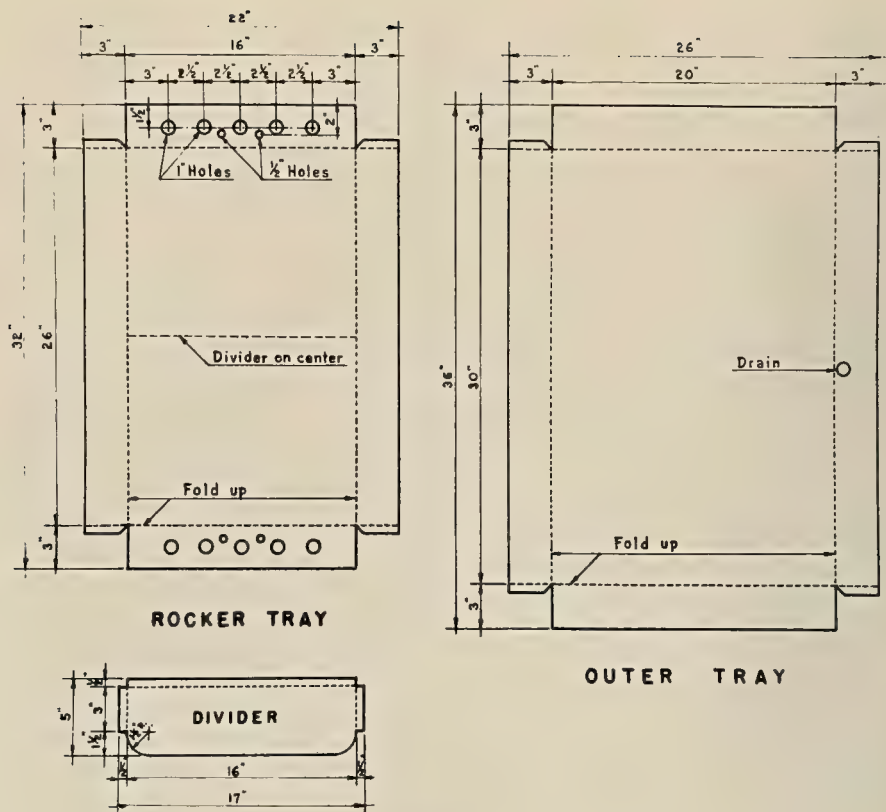


Figure 1.

*Dimensions and fold lines
for galvanized iron.*

Constructed according to these plans the washer may be operated on a table or bench, no tank or sink being necessary. Running water and an adequate drain are the only requirements.

Tools needed are a soldering copper, tin shears and a hammer for working the galvanized iron, a foot long piece of heavy square iron bar or angle iron to help in the shaping and 1" and 1/2" metal drills. Lacking the tools or the temperament to build the washer yourself, you may have the complete job done at a tinner's for about twice the material cost.

Material and approximate cost is as follows:

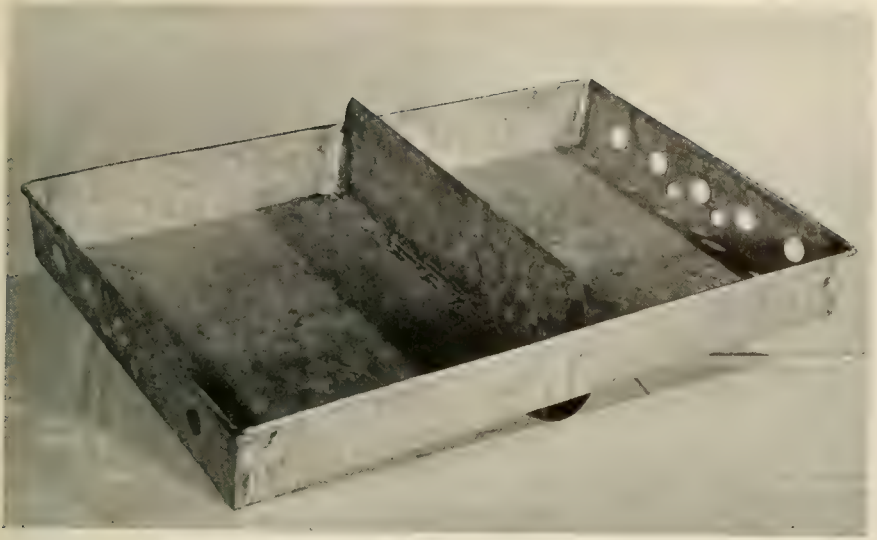


Figure 2. Rocker tray complete.

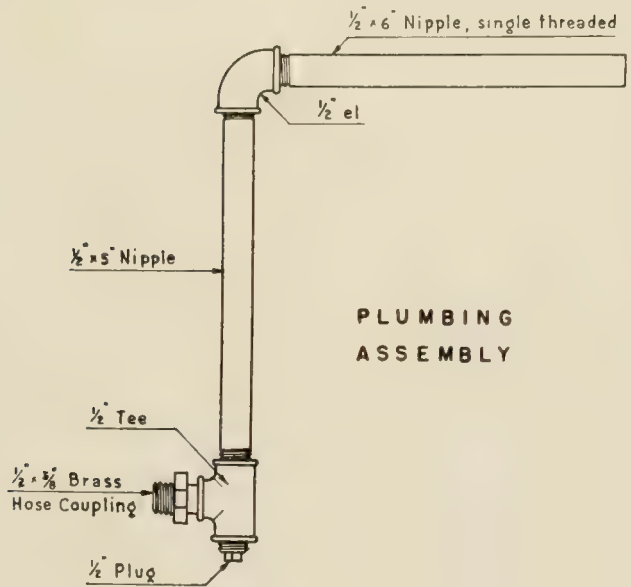


Figure 3.

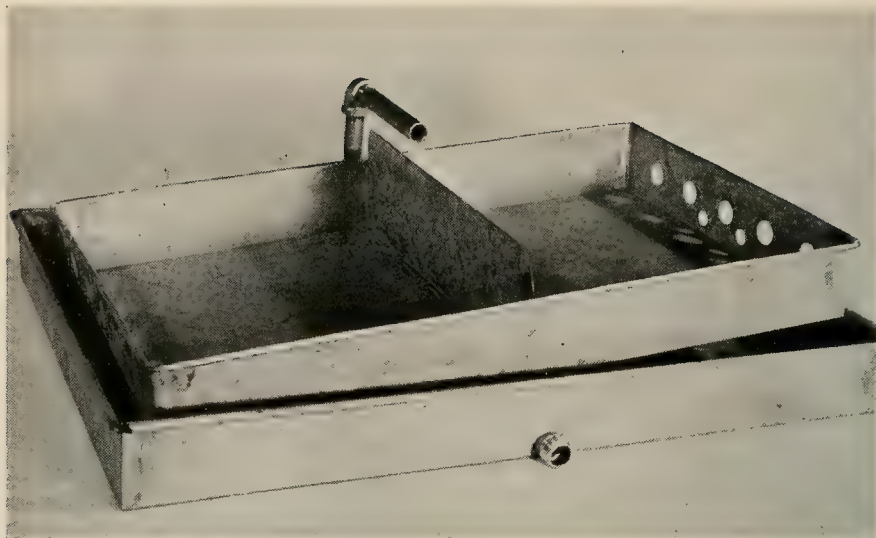


Figure 4.

Galvanized iron, 26 gauge.....	\$1.20
Strap iron, 1"x $\frac{1}{16}$ "x20".....	.10
Solder, acid core.....	.20
One $\frac{1}{2}$ " tee.....	.10
One $\frac{1}{2}$ " plug.....	.05
One $\frac{1}{2}$ "x5" nipple.....	.07
One $\frac{1}{2}$ "x6" nipple, single threaded.....	.07
One $\frac{1}{2}$ " el.....	.10
One $\frac{1}{2}$ "x $\frac{5}{8}$ " brass hose coupling.....	.15
One 2" sponge rubber ball.....	.05
Waterproof enamel.....	.40
Total	\$2.49

Cut the galvanized iron to size as shown in Figure 1. Drill the indicated holes, bend at right angles on the dotted lines to form two shallow trays and solder the corners. It is advisable to run a heavy wire bead or light strap iron around the top edges for extra strength but this is not absolutely necessary. The 4 $\frac{1}{2}$ " high divider is soldered upright across the exact center of the smaller tray, rounded corners up.

Two 5 $\frac{1}{2}$ " long pieces are cut from the strap iron and shaped into rockers, half circles having a radius of 2 $\frac{1}{4}$ " with about an inch wing on each end. Solder these rockers onto the bottom of the smaller tray, centered on and parallel to the long sides. The rocker tray is now complete and should appear as in Figure 2.

The hose connection, tee, el, plug and nipples are assembled as in Figure 3. This assembly is soldered to the center of one of the longer sides of the outer tray, using the remaining strap iron for additional strength. A drain hole is cut wherever desired. If the washer is to be used in a sink,



Figure 5

the drain is placed in the center of the bottom and short legs attached to the corners. The washer illustrated has the drain on a side and is fitted with a hose connection permitting it to be used on a table. Figure 4 shows the assembled material.

A heavy coat of waterproof enamel is applied. After the enamel has dried, halves of the sponge rubber ball which has been cut in two are cemented to the bottom of the inside of the larger tray to act as bumpers or shock absorbers for the ends of the rocker tray. Thin strips of sponge rubber cemented to the bottoms of the rockers prevent creeping.

Place the rocker tray in position and attach a hose from the water supply. Connect with a drain and turn on a moderate stream of water. Move the rocker tray to the exact center of the tank. The water falls on the upper side of the divider and rocker action is automatic, the upper half filling while the lower half drains, until the washer rocks and the action reverses.

Regulate the water supply so that the rocking interval is from 7 to 12 seconds. Washing time for single weight prints is 15 to 20 minutes, longer if a large number are being washed. For double weight prints an hour is required. No attention is required from the time the prints are placed in the washer until they are taken out to be dried. The constantly renewed fresh water running over the prints, with the stream coming in at an angle giving the water a whirling motion, effectively keeps the prints separated. The washer in action is seen in Figure 5.

Cinema Section

Edited by

William A. Palmer

It's All Done With Mirrors

IT'S all done with mirrors" is a popular conception of the means by which Hollywood achieves most of its trick effects. This is not the case in present day theatrical production, for the technical minds have conjured many stunts of more or less complication which substitute for effects which in the earlier days of the movies were accomplished by mirrors. But if the professionals have forsaken the good old looking glass there is no reason why the amateur can not put it to good use, for the mirror can be a most versatile and convenient tool.

What Type of Mirror?

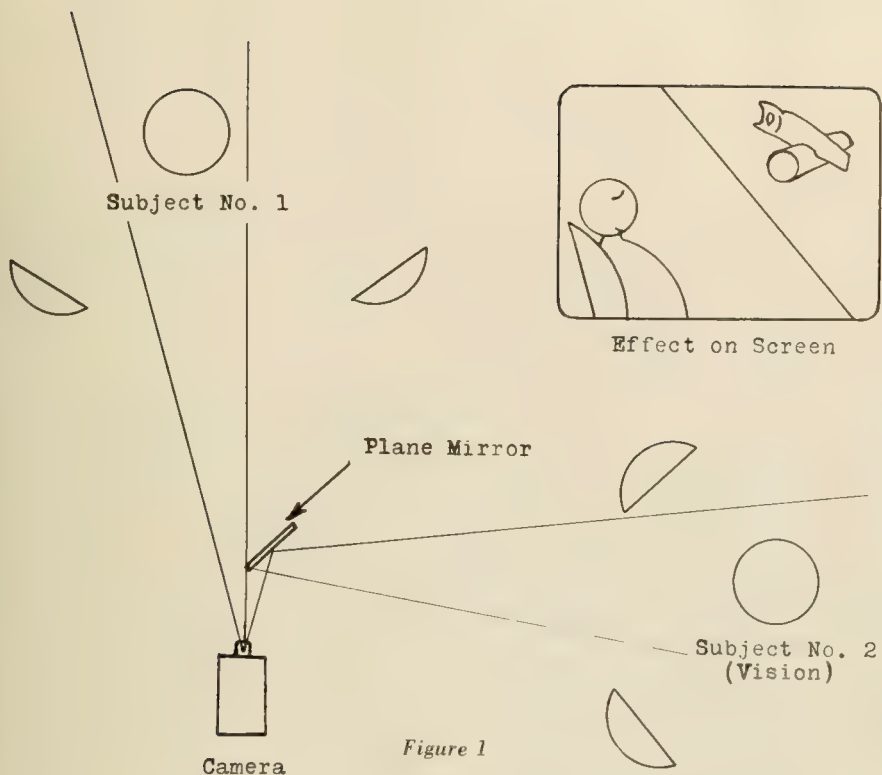
There are three general forms of mirrors which can be of service in movie work. The first is a flat or plane mirror; then there is the concave mirror or "enlarging" type such as those sold as an aid in shaving; and last, the convex or "reducing" type such as those used for rear-view mirrors on trucks and automobiles. All three of these have certain uses which will be mentioned later.

There are two general types of construction for mirrors: the ordinary back-surfaced variety in which the silver coating is placed on the back of the glass and protected by a heavy paint or varnish, and the first-surfaced variety, which is most suitable for photography, in which the silvered surfaces are supported on top of the glass and protected by a very light coating of clear lacquer. This latter type is readily obtainable on plane mirrors but is very difficult to obtain in either convex or concave forms. The first-surfaced mirror is highly desirable because it eliminates double reflections which occur to some extent in all ordinary mirrors, but it is delicate and the surface can easily become damaged. For most movie work, the ordinary mirror which is cheaper and more readily obtainable will prove quite satisfactory.

The size of the mirror will differ with the particular effect. Sometimes a large one is in order, and at other times one as small as a lady's compact mirror will do the job. But one would do well to make a collection of an odd assortment, for most any kind may be of use some day.

Double Exposure Effects

Perhaps one of the most interesting uses of mirrors is in the photography of double exposure effects in which it is not necessary to run the film through the camera twice. This appeals strongly to those owners of cameras not equipped with a wind back. A typical example would be a sequence in which a sleeping person is shown dreaming. Here the set-up would be something like that shown in Figure 1. A mirror is placed near the camera and in such a position that it obscures the upper right hand corner of the frame beyond the mirror. Straight ahead, the camera can view the subject against a dark background as he sleeps



in the chair. Reflected in the mirror, the subject of his dream appears. The mirror must be unframed and since it is quite close to the camera, its edge is somewhat blurred and will not appear to be a mirror. The vision or dream can be made to fade in and out during the shooting of the scene simply by bringing the light illuminating the vision slowly on and off. This can be done either by having dimmers on the lights, or even more simply by turning the lights away from the vision until it is to appear, then slowly bringing their full intensity back on the subject.

This same set-up can be used to give a very smooth and professional wipe effect between two scenes set up in the respective positions of the subject and vision in Figure 1. In this case, all that is necessary is to have the mirror fixed on a sliding support so that the scene may be started with the mirror out of the camera's field while a scene of the subject number 1 is photographed. Then, with the camera still running, the mirror is slowly pushed forward in the direction of the arrow, whereupon progressively subject number 2 comes into view. Such an arrangement will give a thoroughly professional wipe with any camera.

A word about focusing for mirror shots. In all cases of photography with plane mirrors, one must remember that the camera must be focused for the distance from the camera to the mirror *plus* the distance from the mirror to the subject. In other words, the camera must be focused for the entire distance to the subject by way of the mirror, and in no case should the camera be focused on the mirror itself.

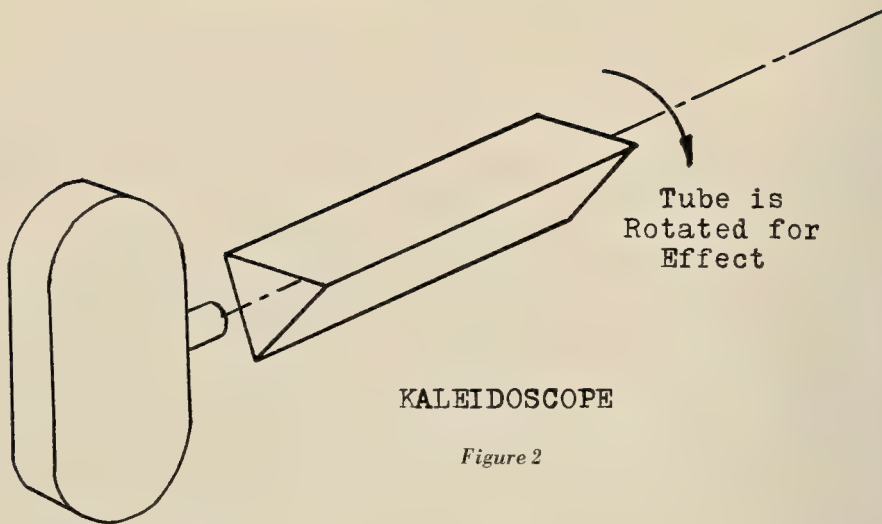


Figure 2

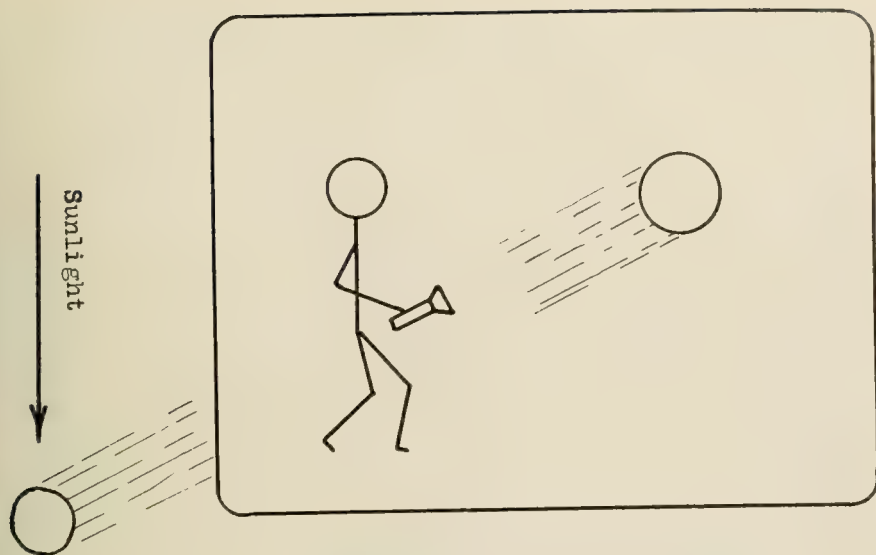
An unlimited number of multiple image effects can be created by the use of two large plane mirrors which are set parallel and facing each other. This arrangement will give that infinite repetition of images which is familiar to all patrons of barber shops. In moving pictures this effect has fine possibilities for films of industrial operations where it is desirable to create the figurative impression of tremendous quantity of uniform production. The motion, however simple, is repeated in decreasing size as it apparently stretches out to infinity. In most of these double exposure effects, a mildly convex mirror can be used in place of the plane mirror. The effect of the convex mirror is to reduce the size of the reflected image and make it appear to be more in the distance. The concave mirror does not have very good use in this type of effect.

Reverse Motion for 8 Millimeter Film

A plane mirror can be of value to 8 millimeter camera users who wish to take advantage of the trick of reverse motion by the simple expedient of turning the camera upside down while photographing the scene. If such a scene, made with an upside down camera, is cut out of the finished film and reversed end for end and spliced back in, the motion on the screen is reversed. In the case of 8 millimeter cameras, however, the film must not only be reversed end for end, but it must be turned front to back in order to have the single row of perforations come on the right side. This causes the scene to be reversed from left to right and destroys the possibility of splicing a forward and backward motion together to appear to be taken from the same position. By photographing the scene with the upside down camera as it is reflected in the mirror, the scene will appear on the screen without being reversed from left to right.

Fancy Title Backgrounds

The use of mirrors to form a simple kaleidoscope can make some very attractive title backgrounds similar to those used in theater trailers announcing coming attractions. The kaleidoscope consists of three pieces of plane mirrors each about one inch by seven inches, bound together into a triangular column with the mirror surfaces inward. This can be placed in front of the camera



Flashlight Effect made by Mirror
Outside of Camera Field

Figure 3

lens so that the view through the triangular tube of a design is repeated in weird angular forms. As the tube is rotated, the forms change position and give rise to the typical kaleidoscope effect. This arrangement, when used with Kodachrome film, can give a most spectacular background over which the letters of a title can be double exposed.

Effect Lighting by Means of Mirrors

There are many cases where different types of mirrors can be used to achieve lighting effects in daylight which closely approach the abilities of elaborate lighting units of Hollywood. They are particularly useful when one is making pictures far from a source of electric power and yet wants to get the effects of controlled lighting. A typical example is a "faked" night scene in which a person is shown exploring with a flashlight. A thoroughly authentic looking scene can be made by shooting in fairly deep shade while directing a brilliant beam of sunlight from outside the camera field by means of a round plane mirror. The person in the scene, of course, would have a flashlight in his hand and as he directs it in his search, another person outside of the camera field can manipulate the mirror so that the spot of sunlight travels in the direction in which the flashlight is pointed. The exposure should be set for the sunlight, whereupon all other objects in the shade will appear very dark as if it were night. By varying the size of the mirror used, one can get the effect of a very small and concentrated beam or a fairly large beam as if the source were a searchlight. In general, the size of the spot of sunlight thrown will be the same as the actual size of the mirror.

The use of a convex mirror for directing light is of great value, particularly in color film, for in such a mirror one has a unit which will serve a purpose similar to the ordinary large aluminum or foil reflectors without their awkwardness. Such a mirror of larger size, called a Sunflector, is made especially for the

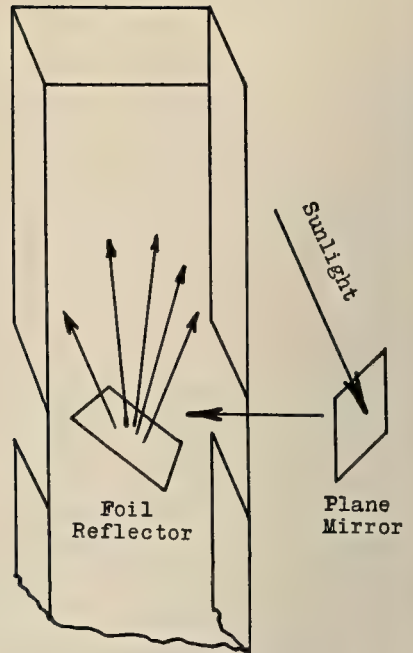


Figure 4

ILLUMINATING BOX CAR INTERIOR

purpose of controlling sunlight. These are made by one of the well known manufacturers of amateur photoflood lighting units, and can be purchased from your photo dealer. Two or three of these mirrors are a most useful addition to one's equipment when shooting color in sunlight, for by their proper placement, the shadows can be illuminated to reduce the terrific contrasts of a typical Kodachrome scene made in sunlight. The concave mirror is not exactly the equivalent of a large area of foil covered surface, for the source from the former is more concentrated and the mirror will throw sharper shadows.

The intensity of the illumination reflected from the Sunflector, as well as the area covered, varies as the distance from the subject to the reflector. The further away from the unit, the larger the area covered, but the dimmer the illumination. In this respect it is more controllable than an ordinary flat aluminum surface.

A large plane mirror such as that on a bureau or dressing table can be used to illuminate interiors by a relay system. A typical example is the problem of photographing the interior of a railroad box car when electric current is not available, a problem which came up recently in the photography of an industrial film. The time was the middle of the day when the sunlight was practically vertical and the ordinary aluminum foil reflector was practically useless to assist light into the far corners. By use of the large mirror from a dressing table a beam of brilliant sunlight was directed in the door where it was again caught by an aluminum foil reflector and directed to the farthest corners of the car. Ample illumination thus was obtained for full exposure.

The possibilities of effects with mirrors are unlimited and these few mentioned here will no doubt suggest others, so get yourself a collection of mirrors and play around.



"Death Valley"

Richard Rundle, San Francisco, Calif.

First Award Advanced Class

■ A free-flowing, well ordered movement of line, which carries the eye through a print in well controlled fashion, is always a great asset to any picture. When such a movement is supplemented with interesting textures and rather unusual subject matter, the interest value of the picture is likely to reach a high level. That is precisely what we find here. The circular basin at the base of the print provides a perfect entrance point for the eye. It then travels to the left along the gully containing the light toned silt until this light tone peters out at the extreme left. The eye then swings to the right and follows the ridges up to the dark formation in the upper right. Notice the important part played by this dark area in providing a climax for the movement. It provides a point which checks the force of the movement, permits the eye to come to a comfortable stop and to then move down to the right side of the print to the basin at the base, from which point the movement may be repeated until the eye is thoroughly satisfied. Such a situation gives the picture a self-contained quality that is most important to a successful composition, and it is precisely this quality that is so often lacking in pictures of this kind.

Data: $3\frac{1}{4} \times 4\frac{1}{4}$ " Series D Graflex; $6\frac{3}{8}$ " Kodak Anastigmat F:4.5; 1/100th sec. at F:16 on Agfa Isopan in Edwal 12; 8 x 10" print on Defender Velour Black S-33 glossy, in Defender 55-D.



"Warren Thorp"
 Fred Herrington, A.R.P.S.
 San Francisco, Calif.

careful printing. Watch for a Herrington print in our Traveling Salons, and notice this quality.

Data: $3\frac{1}{4} \times 4\frac{1}{4}$ " Graflex Series D; $6\frac{1}{4}$ " Tessar; 1/5th sec. at F:6.3, on Kodak Panatomic X, in Kodak DK-76; outdoors in shade with open sky overhead; 11 x 14" print on Gevaluxe, in Gevaert GD-61.



"The Polevaulter"
 Maurice Schlatter,
 Pasadena, Calif.

■ We have commented so often on the general aspects of Mr. Herrington's fine portraits that there is little which is new for us to say in that respect. We would like to call attention to the remarkably fine detail which he consistently carries in dark garments and other low key areas of his pictures. Unfortunately it is not possible to hold this very subtle low key detail in a reproduction so the reader can not really see what we are talking about. He can see, however, that the area of the coat is good and dark in its tone value, and we hope he will take our word for the fact that there is fine texture and detail there without any loss of depth of tone. The maintenance of texture in dark areas is most important to good work, for when texture is lost in such areas the appearance of substance is also lost. We have only blank blackness remaining. In order to get such quality the photographer must first light his subject so that the scale of the subject is within the sale of his printing paper. The rest is the result of precise balance of exposure and development, plus

■ Violent action is beautifully caught here. Extreme muscular strain is everywhere apparent, in the face as well as in the body. The point at which the action is caught is also very well selected. This is the crucial moment in the pole vault. The lower half of the body almost always clears the bar, the difficult part of the vault is to get the upper part of the body safely over. The suspension of the body over the fragile appearing crossbar also helps to add to the appearance of action, for this is plainly a situation which can only endure for an instant. The print is somewhat grainy and not entirely sharp but these factors are not as important here as they might be with different subject matter. The slight lack of sharpness may even be considered as of some help in conveying the feeling of movement. There is one possible alteration which is worth considering. The vaulting pole which supports the vaulter now runs almost horizontally. Would it not help the action and also the observer's understanding of the action if this took a more vertical direction. It would

(Continued on page 47)

Fourth Award

Advanced Class

■ Here is a picture which is full of human interest plus a touch of humor, while a thorough going naturalness of pose and expression adds much to its charm. There is nothing pretentious here—just an interesting little fellow with a funny hat, but these elements combined with honest, natural treatment make a picture. We think that many photographers make the mistake of trying to take some high-flown poetic or dramatic attitude toward subject matter which should be treated simply—just as this is. The camera has the advantage over all other mediums when used in this vein. We would like to see just a little more of the face, so that the expression would be slightly more revealing than is now the case.

Data: Rolleiflex; Zeiss Tessar lens; 1/50th sec. at F:8, on Kodak Panatomic X, in Kodak D-76; no filter; 10 x 12" bromide print.



"Village Humor"
Lo Tak-cho,
Hong Kong, China

Fifth Award

Advanced Class

■ This picture is successful because the clouds fit in perfectly with the landscape. Even the cloud shadow which moves in from the right just beyond the immediate foreground is essential to the arrangement. This cloud shadow starts the eye moving to the left toward the barn. From the barn it sweeps upward in a vast curve, following the break in the clouds. This movement is on a grand scale and it is that quality combined with the simplicity of the landscape that makes it possible for the picture to strongly convey the feeling of great open space. There are many occasions where the landscape photographer has to work with great rapidity. This ideal combination of circumstances probably did not last for more than a few minutes. It was necessary for the photographer to recognize his opportunity and turn it into an exposure without the loss of a moment. In such a situation facility in handling the camera becomes of great importance.

Data: Crown View Camera; 6" Artar lens; Kodak Panatomic X film; 11 x 14" print on Defender Velour Black paper.



"Sonoma"
Fred P. Wilcox,
San Francisco, Calif.



"Ignacio"

Samuel O. Hoffman, San Francisco, Calif.

First Award—Amateur Class

■ Here is a fine example of the modern approach to landscape photography. The emphasis here is on interesting relationships of form, presented with crisp clarity. In the more romantic approach, emphasis is on mood conveyed through atmospheric qualities. Mr. Hoffman has worked out his arrangement with a sure touch. The barn is placed just right, and the relation of the foreground material to what is seen beyond is finely adjusted. For example, notice how the arrangement would be weakened if the fence post on the right did not reach above the line of the hills. This seemingly inconsequential detail is most important in giving strength to the foreground material. In the print (probably not in the reproduction) the sky tone seems just a shade too light. We don't want a dark sky here, but just enough tone value to give the sky substance and luminosity. There appears to be a slight falling off in tone value toward the upper left, which should be corrected by careful dodging. We do not think that this is due to technical shortcomings, probably the subject matter was like that, but it has the appearance of a technical defect and makes the upper left corner look a little weak.

Data: Ideal "A;" 1/25th sec. at F:11 on Agfa Supreme film pack, in Kodak DK-20; 8½ x 11½" print on Defender Velour Black in Defender 55-D.

Second Award

Amateur Class

■ If you don't get a laugh out of this one we are sorry for you. The expression here seems perfectly grand to us and the title puts it over with a bang. Observe the very clever use of slight distortion. The hat, of course, is too small for the head but that alone would not function so perfectly if it were not for slight distortion brought about by a low, close camera position. Notice the size of the ear in relation to the mouth. Notice also that distortion has been used with restraint so that it does not force itself upon our attention as such. It simply heightens the humorous qualities of the head without appearing as an obvious device. The picture would be technically better if exposure and lighting combined had succeeded in holding some substance in the black of the hat and the coat.

Data: $2\frac{1}{4}$ " x $2\frac{1}{4}$ " Super Pilot; Pilotar lens; $1/20$ th sec. at F:4.5 on Kodak Panatomic X in Micrograin 85; taken indoors with two No. 2 photofloods; 8×10 " print on Kodak Kodabrom G3, in Kodak D-72.



"Hello Sugah"
H. M. Buchanan,
Tulare, Calif.

Third Award

Amateur Class

■ Here is another humorous subject of which we have several this month. Most important watchword for the photographer who would be funny is RESTRAINT. Imagine how many would handle this subject. The photographer would be tricked out in some travesty of photographic paraphernalia; the girl would be made to appear either very homely, or by means of an exaggerated amount of make-up—a burlesque of a movie queen. In short the idea of the picture would be made so horribly obvious that it would lose all attractiveness. A picture must be clear, must be easily understood; but it must also have subtlety, must leave something to the imagination. A person who tells a joke, and then carefully explains the point is a bore and so is the picture maker who becomes overly obvious.



"Dazzling"
E. G. England,
Durham, Calif.

The arrangement here would be a little better if the two figures were closer together so that they would function more as a unit, and it is unfortunate that the girl's arms are trimmed away at a rather awkward point.

Data: $3\frac{1}{4}$ x $4\frac{1}{4}$ " Auto Graflex; Bausch & Lomb lens; 8×10 " glossy print.

Fourth Award

Amateur Class



"A Ducky Pair of Quacks"

*Roland Beers,
Dallas, Texas.*

■ This picture contains good subject matter but the treatment leaves something to be desired. The dark line in the background is very disturbing and the two ducklings are too even in interest value to function comfortably together. The one on the left takes slight precedence through being shown at a more interesting angle, but it seems to us that the dominance of one over the other should be more apparent. Imagine the picture, for example, with the duckling on the left about as is and with the other one sitting in a position that would tie the two together, would not the result be better? The out-of focus foreground

material is also disturbing, so it becomes plain that a different setting is called for.

Data: 11 x 14" promide print.

Fifth Award

Amateur Class



"Sun Catchers"

*Mary Lauritsen,
San Francisco, Calif.*

■ This picture is quite satisfactory in every respect except definition. The blossoms are nicely distributed in the picture space and the back lighting presents a most interesting aspect of both blossoms and grass. In a picture of this nature however the observer insists upon an intimate, revealing look at the subject matter and that means absolutely sharp definition. A glance at the technical data makes the cause of the difficulty plain. We would have to have an exceptionally still day indeed to get by with 1/10th second exposure on this material.

Data: 2 1/4 x 2 1/4" Rolleicord II; Zeiss Triotar F:3.5; 1/10th sec. at F:16, on Kodak Panatomic X, in Kodak D-76; with K-2 filter; morning outdoors in November; 11 x 14" print on Defender Velour Black DL-22, in Kodak D-72.

Monthly Competitions

SCORING FOR CLUB TROPHY CUPS

The following won points for their respective clubs in the Advanced Class: Richard Rundle, for the California Camera Club; Fred Herrington, for the E.P.I.C. Pool; Maurice J. Schlatter, for the Pasadena "Y" Camera Club; Lo Tak-Cho, for the Photographic Society of Hong Kong; and Fred P. Wilcox for the Aremac Camera Club.

The following won points for their respective clubs in the Amateur Class: Samuel O. Hoffman and Mary Lauritsen, for the Photographic Society of San Francisco; H. M. Buchanan, for the Tulare Camera Club; E. G. England for the Kamera Kranks; and Roland Beers, for the Dallas Pictorialists.

CONTRIBUTING CLUBS

Areac Camera Club (San Francisco)
California Camera Club (San Francisco, Calif.)
Camera Circle (San Francisco, Calif.)
Dallas Pictorialists (Dallas, Texas)
Detroit Camera Club (Detroit, Mich.)
Grays Harbor Camera Club (Aberdeen, Wash.)
Japanese Camera Club (Chicago, Ill.)
Miniature Camera Club of New York

Kamera Kranks (Durham, Calif.)
Pacific Camera Guild (San Francisco, Calif.)
Pasadena "Y" Camera Club
Photographic Society of Hong Kong
Photographic Society of San Francisco
Retlaw Camera Club (San Francisco, Calif.)
South Plains Camera Club (Lubbock, Texas)
Tulare Camera Club (Tulare, Calif.)
Yellow Springs Camera Club (Yellow Springs, Ohio)

STANDING OF CLUBS

Large Clubs—Advanced Class

California Camera Club.....	5
Pasadena "Y" Camera Club.....	3

Small Clubs—Advanced Class

E.P.I.C. Pool	4
Photographic Society of Hong Kong	2
Areac Camera Club.....	1

Large Clubs—Amateur Class

Photographic Society of San Francisco.....	6
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Small Clubs—Amateur Class

Tulare Camera Club	4
Kamera Kranks	3
Dallas Pictorialists	2

(Continued from page 42)

take such a direction if the camera position had been more to the right (impossible, of course, for the photographer would then be in the vaulter's path). We can, however, move toward that condition by tilting the negative about 45 degrees in printing. This would probably mean a horizontal print (no apparent disadvantage) and might force the inclusion of some awkward aspect of the legs which would not be desirable. Such an adjustment would place the vaulting pole along (but not parallel) to the right side of the print instead of the top.

Data: 3¼ x 4¼" Series B Graflex; Zeiss Tessar lens; 1/350th sec. at F:4.5 on Kodak Portrait Pan, in D-76; 11 x 14" print on Kodak Kodabrom G, in Amidol. Slight sulphide tone.

THE CAMERA CRAFT MONTHLY COMPETITIONS—EXPLAINED

It is well to understand at the start that the rules governing these competitions are purposely kept at a minimum, so that the competitions may be open to all without red tape and without complication. A competitor may take whatever action he desires that is not specifically denied by the rules. **Camera Craft** makes no copyright claim to the pictures which win awards, and their makers are entirely free to do with them as they wish. Do not bother to wonder if you may do this or that. You have complete liberty of action, provided only that you observe the few simple rules given below.

Rules

■ Any one may enter. You are **not** required to be a member of a camera club, a subscriber to **Camera Craft**, or anything else. No entry fees. No entry blanks. No restrictions on size, or number. Mounts are not required.

■ There are two classes, "Advanced" and "Amateur." These groups are judged separately, with five awards in each class, ten awards in all. The ten winning prints are published in **Camera Craft** each month.

- Prints must have maker's name and address, the class in which they are to be entered (whether "Advanced" or "Amateur") and the technical data (see below) regarding them, plainly marked on the back of each.
- Prints shall be returned only when stamps sufficient to cover are enclosed with the pictures. Do not send stamps under separate cover as it is possible they may not be connected with the identity of the sender or prints.
- Prints may be in black or sepia but tinted and painted photographs are barred.
- Prints must be in before the 1st of each month to be entered in the succeeding month's competition.
- Prints winning prizes cannot be returned.
- The object of the two classes, Advanced and Amateur, is to insure that individuals shall compete on as even terms as possible. Compare your prints with those shown as prize winners in the two classes, and decide with which group your pictures would most fairly compete. If in doubt enter first in the amateur class and then if successful move up to the advanced class. In order to insure fairness and an equal chance to all, the judges reserve the right to move prints into the advanced class if the quality of the pictures seem to justify this.

Awards—Advanced Competition

First: \$10.00.

Second: \$7.50.

Third: One year's subscription to **Camera Craft**.*

Fourth: One year's subscription to **Camera Craft**.*

Fifth: One year's subscription to **Camera Craft**.*

Awards—Amateur Competition

First: \$7.50.

Second: \$5.00.

Third: One year's subscription to **Camera Craft**.*

Fourth: One year's subscription to **Camera Craft**.*

Fifth: One year's subscription to **Camera Craft**.*

* May be presented to a friend or divided and presented to friends at this or holiday time.

Technical Data

We request that the technical data be placed on the back of each print submitted to the competition. A complete technical description should cover the following points: Size and make of camera, make and focal length of lens; exposure time and aperture used; negative material; negative developer; filter; light source; (if artificial, the number of lights and the wattage, if outdoors, the time of day and the month); paper; print developer; special treatment. By "special treatment" we mean, any manipulation or procedure that is not covered by the above.

Club Trophy Features of the Competitions

Four Trophy Cups will be awarded to clubs making the best record in the Camera Craft Monthly Competitions each year. Awards will be made on the following basis:

1. Clubs will be divided into two groups—large and small on the basis of membership, and identical awards will be made to each of the two groups. This is to make sure that competing clubs will be of approximately the same size. Large clubs will be those whose membership is over 40. Small clubs are those with membership of 40 or less.
2. The four awards are as follows:
 - (a) To Large Club making highest total score in the Advanced Class.
 - (b) To Large Club making highest total score in the Amateur Class.
 - (c) To Small Club making highest total score in the Advanced Class.
 - (d) To Small Club making highest total score in the Amateur Class.
3. Points in each of the four divisions, Large and Small Clubs, Advanced and Amateur Classes are as follows:

5 points for First Award, 4 points for Second Award, 3 points for Third Award, 2 points for Fourth Award, 1 point for Fifth Award.
4. Each club has the opportunity of competing for two cups. One in the Advanced Class and one in the Amateur, but individuals within the club cannot enter in both classes. Individuals may choose the class in which they wish to compete, but the

judges reserve the right to change entries from the Amateur to the Advanced Class if the quality of the work seems to warrant it.

5. No individual can earn more than 15 points for his club.
6. It is well to understand that the conduct of this competition is in nowise changed by the addition of these annual club awards. Judging is still entirely on the basis of the individual print, and those who are not club members have the same chance of winning awards as formerly. The only difference is that now if a prize winner is a member of a club, his club will be credited with the proper number of points allocated for that prize.
7. Scoring for these cups begins with the January Competition, prints for which must reach this office on or before December 1st. It runs for 12 months concluding with the December competition. Prints for each succeeding competition must reach this office on or before the 1st day of the preceding month.
8. Club name, makers name and address, and technical description of print must appear on the back of each picture.

What a Club Should Do

- Study the rules which appear on this page and the rules governing the competition in general which appear above. ■ Appoint a committee of one or two whose sole duty will be to collect and forward prints **each** month and on **time**.
- Divide your membership into two groups, one to compete in the Advanced Class, the other in the Amateur. It is not required that a club compete in both classes.
- Be sure and send each month as it is the total score that wins.

Prize Winners Widely Exhibited

The winning prints in these competitions are made up into Traveling Salons and circulated for exhibition and study to Camera Clubs throughout this country. At present 186 clubs are receiving these shows so we feel entirely safe in saying that these pictures receive a wider exhibition than is possible by any other means.

IN REPLY TO QUESTIONS

1. There is no rule against entering a print in the competitions more than once, providing it has not won an award.
2. Either clubs or individuals may send a batch of prints in one package and have two or three entered each month, the group being returned when all prints have been entered. When such procedure is desired a covering letter should be sent, and the sender **MUST** mark on the back of each print the month in which it is to be entered. Camera Craft will not take the responsibility of selecting which prints from a group are to be entered in any given competition.
3. The safest means of transportation is by Railway Express, but this is more expensive than Parcel Post in most cases.

Club Notes

Exhibitions

Photographers in the New York area will do well to keep in close touch with the Photo League, 31 E. 21st Street, New York City. According to a notice in their bulletin, the coming season will bring a group of brilliant exhibitions to their galleries. Among the exhibitors mentioned are Edward and Brett Weston, Margaret Bourke-White, F. S. Lincoln, Eliot Elisofon, Morris Engel, Helen and Marion Post, Aaron Siskind, Hansel Mieth, Otto Hagel, Barbara Morgan, and Arthur Rothstein. As no definite exhibition dates were given, it will be necessary to communicate with the Photo League for this information.

We learn from the *News Bulletin* of the

Kodak Camera Club of Rochester, New York, that a full schedule of loan exhibits has been arranged for the coming months. The prints will be exhibited on the walls of the Camera Club, Building 4.

The Annual Print Show of the California Camera Club, 45 Polk Street, San Francisco, will be displayed during the entire month of December. Visitors are welcome.

Fifty-six photographs taken by members of the Niagara Frontier Camera Club Council are being exhibited in the Print Room of the Buffalo Museum of Science, Buffalo, N. Y. The collection shows the Museum in miniature for each picture depicts a museum exhibit, the Museum Building itself, or a candid shot taken in the Museum. The exhibition will run through January 5th.

Post Office Department

THIRD ASSISTANT POSTMASTER GENERAL

Washington

July 17, 1940.

Mr. G. A. Young,
Camera Craft Publishing Company,
425 Bush Street,
San Francisco, California.

My dear Sir:

In answer to your communication of July 8, you are informed that in general a written inscription on a photograph which merely describes or identifies the scene or subject of the picture may be regarded as "for purpose of description" and, therefore, a permissible written addition under sections 568 and 574, Postal Laws and Regulations. When the written matter goes beyond this, however, postage will be required at the first-class rate.

It is noted that in conducting a monthly competition photographs are being sent to your Company by individuals who are requested to furnish information with respect to them, as follows:

"Size and make of camera;
Make and Focal length of lens;
Exposure time and lens aperture used;
Negative Material;
Negative developer;
Filter used, if any;
Time of day and type of lighting if an outdoor exposure;
Printing paper used;
Number of lights and type of lights if an indoor exposure;
Print Developer used;
Nature of any special treatments, such as toning, dodging, etc."

Written matter placed after these items are construed as being merely for the purpose of description of the photographs and will not affect the rate of postage chargeable therefor.

However, any written matter which goes beyond what is "for purpose of description" will properly subject such photographs to postage at the first-class rate, irrespective of whether they are sealed or unsealed.

Very truly yours,

Ramsey S. Black
Third Assistant Postmaster General.

Confusion is continually arising over interpretation of the postal law concerning what is properly mailable as Parcel Post matter. The law states that only such written matter may appear on the back of a photograph as may be regarded as "for purposes of description." If more than "description" appears in writing the package is subject to first-class rates.

Various postal officials have variously interpreted the phrase "for purposes of description."

In order to clarify this situation Camera Craft reproduces above in facsimile a letter from the Third Assistant Postmaster General. This letter explicitly states that the maker's name and address, the title of the picture and a full technical description are construed to be within the meaning of the phrase quoted above.

Camera Craft therefore suggests that the reader clip out the above letter and use it to convince any postal official who is disposed to adopt a more narrow interpretation of the law.—Ed.

Photographic Instructions

Day time classes in photography are now being conducted by Mr. Jacob Deschin, A.R.P.S., at the Young Men's Hebrew Assn., Lexington Avenue at 92nd Street, New York City. Anyone interested may write the above address or phone Atwater 9-2400.

University of California Extension Division Courses directed by P. Douglas Anderson, F.R.P.S., will begin their new terms during January, 1941. These popular courses are open to all and visitors are invited to attend the first meetings without obligation. Classes will be held both in San Francisco and Oakland:

San Francisco, 540 Powell Street

The Miniature Camera, 805—Tuesday, January 7th, 7-9 P.M.

Advanced Photography, 803-B—Tuesday, January 7th, 10:30 A.M. to 12:30 P.M.

Advanced Photography, 803-B—Monday, January 6th, 7-9 P.M.

Darkroom Technique, 808—Thursday, January 9th, 7-9 P.M.

Oakland, 1730 Franklin Street

The Miniature Camera, 805—Wednesday, January 8th, 7-9 P.M.

Pictorial Photography and Composition, 807—Friday, January 10th, 7-9 P.M.

The Museum of Modern Art, 11 West 53 Street, New York City, announces the formation of a Committee on Photography which will discuss plans for the establishment of a Department of Photography for the Museum.

The Committee consists of David H. McAlpin, Chairman; Ansel Adams, Vice-Chair-

man; Dr. Walter Clark, Laurance Rockefeller, James Thrall Soby, John E. Abbott, Alfred H. Barr, Jr., Beaumont Newhall. Mr. Adams, noted California photographer, has been retained by the Committee as consultant and has been in New York for the past month discussing with the Director and certain members of the Museum staff the general subject of the projected department.

The Museum hopes to announce plans for the department about the first of the year and will at that time hold an **Exhibition of Fifty Photographs**, selected chiefly from its own Collection. The exhibition will open to the public Friday, December 27, and will remain on view for approximately two weeks.

A Department of Photography was proposed when the Museum was organized in 1929 but no active steps were taken for its establishment. The Museum has for years, however, included photography as one of the modern arts in its exhibitions. In March and April 1937 it gave over the entire Museum to a very large exhibition devoted exclusively to the subject: **Photography, 1839-1937**. It has also held several smaller exhibitions, notably **Walker Evans: American Photographs** and **Seven American Photographers**. In addition it has circulated throughout the country numerous exhibitions on photography.

An unofficial note from Ansel Adams states that the **Exhibition of Fifty Photographs** will in all probability be shown in San Francisco early in 1941.—Ed.

Notes and Comments

New Products

The new **Iso-Color Process** for making prints in full color has just been introduced by Spectrum Products, Inc., 33 West 60th St., New York, N. Y. Simplification of procedure, ease of manipulation and fine results are claimed for the process. Prints are made from a set of three color separation negatives on Chromatone Print Paper. These are developed in the appropriate color developer, rinsed, fixed, bleached, cleared, washed, striped and then assembled one over the other on the final support. Control over the color balance can be exercised by adjusting exposure of the prints or by altering development times. The company is offering a kit containing all required chemicals and an instruction booklet for \$5.95.

The **Saymon-Brown Coupled Range Finder**, distributed nationally by Burligh Brooks, Inc., 126 W. 42nd St., New York City, measures only slightly over 3 inches in height . . . making it the tiniest coupled range finder made today. This extreme compactness makes it ideal for installation on any camera; but particularly so on cameras where tiny size and light weight are prime requirements. Even fans with inexpensive cameras will welcome this Brooks offering, inasmuch as it sells for only \$13.50, plus \$1.50 for installation. It may be attached to the Speed Graphic, Bee Bee, Linhof, Reocomar, Maximar, Ihagee, and many others, including some post-card size cameras. The

range finder couples direct to the camera lens standard, rather than the usual track or bed. Thus, perfect, in-focus pictures are assured even though the camera is "off" the infinity stop. The device is beautifully finished in satin chrome, and fully guaranteed. A special Brooks bulletin gives complete details.

If you are having trouble getting that final perfect polish on your glossy prints, try the Apollo "Mirrorfinish" Chrome Ferrotype Plates. As most photographers know, good "chrome" plates such as these have an exceedingly long life and the manufacturers claim that with the Apollo the old difficulties of sticking, air bubbles, uneven finish, etc., are practically eliminated. The Apollo plate can be seen at most well stocked dealers, or you can write direct to the manufacturers, Apollo Metal Works, Dept. 3-A, Clearing District, Chicago, Ill.

The new reflex finder shown below, makes a 35mm. camera such as Leica and Contax into a Reflex camera of the Rollei type, with all the advantages of focusing in composition that Reflex cameras afford. The finder readily fits into the accessory shoe on top of the camera, and by a twist of its lens, a foot automatically drops into position against the lens barrel of the camera. The finder is immediately coupled to the camera. The image in the ground glass of the finder will show the same size and focus as the image on the film.



Reflex Finder

Because of the position with which both the cameras and the finders are made, no adjustments for focus are required. Parallax is compensated for by indicating lines drawn on the ground glass. The image does not appear upside down, but is merely inverted from left to right (which is true in all Reflex cameras). The object of the finder is to permit ground glass focusing (a magnifier is built in for this purpose) at an $f:3.5$ aperture under conditions where a range finder may hardly be used, and its value for picture composition is well known.

The finder will be supplied with a 50mm. $f:3.5$ lens. Each finder will be designated for a particular camera with a particular lens such as Leica G with Summar $f:2$ or Contax II with Sonnar $f:2$ and etc. Each finder will be supplied complete with a leather carrying case. The finders are made in a dye casting which has a sand blast chrome finish that matches the camera it is to be used upon. It has two folding covers for the ground glass (similar to Rollei) with a built in magnifier in the top cover.

The finder is very small in size as indicated by the attached photograph and is attached and removed from the camera as quickly as any supplementary view finder. The list price of the item will be \$25 and delivery is expected by the first of February. For further information address Berman & Meyers, Inc., 166-5th Ave., New York, N. Y.

Answers as to both the contrast grade paper and the exposure time are given in one automatic reading with the new Spot-O-Matic Enlarging Meter, manufactured by the Kinnard Company, 445 Lake Shore Dr., Chicago.

The meter also automatically tells when negatives are under or over developed, which serves as a guide in the development of future negatives. The exposure figures are illuminated, and a new type spot has been provided, which is permanent, and which the manufacturer claims is easier to see, despite the fact that it measures enlarged areas as small as $\frac{1}{16}$ inches in diameter.



Spot-O-Matic Enlarging Meter

Means are provided for making adjustments to individual lighting and working conditions, and in operation, the meter requires no grey scales, test strips, or calculations. It can be used with any standard brand of enlarging paper, and it is not necessary to make any speed adjustment except when changing from the paper brand of one manufacturer to that of another.

According to the manufacturer, the Spot-O-Matic was originally designed for the high precision required in color work and built-in tri-color filters are provided for use in making separation negatives. Through the use of any enlarger, the Spot-O-Matic can be employed in place of a densitometer.

Spot-O-Matic is all electric, operating on either AC or DC. Readings are obtained only $\frac{1}{16}$ inches from the focal plane of the enlarger. The meter, very compact, is only 2 $\frac{1}{2}$ inches in diameter. A separate safelight control box is provided, which automatically switches off the safelight when the meter is turned on for operation. By the use of a special blue grey face which covers the entire diameter of the meter, details of the enlarged image can easily be seen without distracting glare. The price is only \$5.95.

Now ready for the photographic public is the Britelite "Universalite," a deluxe outfit consisting of Stand, Special Focusing Device and Accessory Reflectors, manufactured by the Motion Picture Screen & Accessories Co., Inc. A brief outline of the specifications is as follows: Lamp housing made of high tensile strength aluminum alloy, accommodating pear-shaped bulbs from the No. 4 photo-flood to the PS 52-2000 watt movie flood; specially mounted socket on focusing device to center the filament; positive acting clutch yoke connecting the housing through a swivelling device to the stand, thus affording a 360-degree field of focusing.

The universal stand is constructed of aeronautical aluminum in three sections, telescoping to a height of 15 feet, with a low of 18 inches. The demountable base legs have rubber-tired double-race ball-bearing

thread casters. The wiring is 20' of No. 14, 40% rubber-covered heavy duty cable, with armored-clad plug. The switch is T-rating and is mounted in detachable aluminum housing. The Britelite "Universalite" weighs only 16 pounds, and sells for \$57.50 complete. Ask your favorite photographic dealer, or write to the Motion Picture Screen & Accessories Co., Inc., 351 West 52nd Street, New York City.

The Phaostron Company of Alhambra, California, has made available a special carrying case for their model A and B Meters. The case is of heavy leather, sturdily sewed and equipped with a removable shoulder strap. Readings can be easily



Phaostron Ever-Ready Case

taken without removing the Meter from the case by simply unsnapping one flap, which exposes both dial and lens aperture.

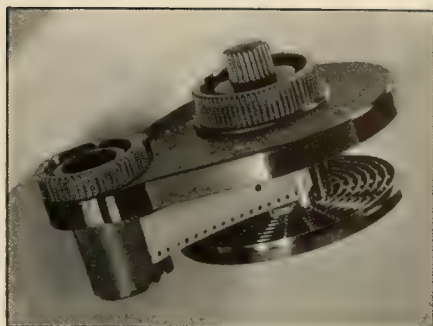
Phaostron Ever-Ready cases can be obtained at all dealers stocking the Phaostron Meter, and list at only \$1.50.

Requiring no darkroom, and no handling of the film before development, a new Kodak Day-Load Tank for 35mm. film is announced by the Eastman Kodak Company, Rochester.

The price—uniquely low for an expertly-designed sturdily made tank of this type—is only \$6.95, and this includes a bottle of DK-20 Kodak Fine Grain Developer to make 16 ounces of solution, all the tank holds.

This new Kodak Day-Load Tank permits the transfer of exposed film from the standard 35mm. miniature camera magazine to the tank reel in full light. It affords the maximum of protection from dust, accidental kinking, and finger-prints, all of which are especially to be avoided in the handling of miniature negatives.

Two chambers are provided in the Kodak Day-Load Tank. The film magazine is inserted in a small side chamber of the tank lid, and the leading end of the film then attached to the tank reel core simply by slipping it under a knurled roller. During this operation, the entire useful portion of the film remains in the magazine, fully protected. An interesting feature is that the tank reel is permanently attached to the lid, so that the two are manipulated as a convenient unit.



Kodak Day-Load Tank

After attaching the film, the lid assembly is inserted into the body of the tank, and a knurled collar turned. This winds the film into the tank reel; about seven turns are required for a 36-exposure roll. Next an index point on a second collar is turned to bring the film end against a stationary knife, severing it neatly, and at the same time making the reel chamber light-tight. A final turn winds the free end of the film into the reel, and the empty film magazine can be withdrawn from the small chamber. The whole operation takes but a few moments, considerably less than the average time of darkroom loading in an ordinary film tank.

Precisely yet ruggedly made of tough molded material, the new Kodak Day-Load Tank will solve many processing problems. It will make possible the daytime development of films during a business trip or vacation tour, as a prompt check on results. For the amateur who has a darkroom that can be made light-tight only at night, it will permit daytime development of exposures he wishes to print that evening. And, since it obviates handling of the unexposed film, it reduces the risk of accidents and manipulative injuries to an absolute minimum.

Announcements

The many friends of Mrs. C. O. Branding will be deeply grieved to learn that she passed away quite suddenly of a heart ailment on Dec. 9th. Mrs. Branding's cheerful presence at the Order Desk of the San Francisco Branch of Agfa Ansco for the past 17 years, has made buying there additionally pleasant for hundreds of photographers.

Many figures well known in amateur and professional photography and the art world in general gathered for a social evening when the Clarence H. White School of Photography held a house-warming and alumni reunion Wednesday evening, November 13, in its new building at 32 West 74th Street, New York City, around the corner from Central Park West, to celebrate entering both its new 6-story home and its thirty-first year.

Guests of honor were: Ansel Adams, Anton Bruhl, Dr. Walter L. Herve, Alfred Stieg-

Hitz, and Max Weber, a co-founder of the school. Illness prevented the attendance of Paul L. Anderson, the third co-founder of the school, who sent a message and a beautiful photograph of the late Clarence H. White and Max Weber. Also present were: Edward J. Steichen, Mervyn W. Palmer and Lewis F. White, all members of the school's Board of Advisors. Also Bryant Chester, Alfred A. Cohn, Eliot Elisofon, Kenneth A. Linn, Arthur Muray, Merton Webb and Clarence H. White 2nd, members of the faculty, and Mrs. Clarence H. White, Director. Others prominent among the 350 guests were: Antoinette B. Hervey, Mr. and Mrs. Beaumont Newhall, Thomas Wilfred, Henry W. Kent, J. Donald Hinds and Lena Towsley. Speakers were Clarence H. White 2nd, Max Weber, Dr. Hervey, Anton Bruhl, Ansel Adams, Col. Steichen and G. Franklin Ream, all of whom spoke with feeling of their association with the late Clarence H. White and the school which is the embodiment of his ideals of photographic education.

The new building was admired as a thing of beauty and efficiency for a modern school. Six floors of lecture rooms, laboratories, studios, exhibition space and a lounge are the result of remodelling a former private home. The capacity of the school has been increased to 250 students, and more courses are being offered than ever before, with a wide choice of day or evening classes, according to Clarence H. White 2nd, Director.

Stan Loeber, much admired maker of fine photostats and dispenser of photographic merchandise, opened his new store on Dec. 10th. The new store will be known as Loeber's and is located at 2110 Fillmore, near California, in San Francisco. A complete stock of materials and equipment is on hand including agencies for all the standard lines. As an accommodation to photographers who find it difficult to shop during business hours the store will remain open evenings, not only during the Christmas season, but as a continuing policy. The spirit behind the new store is best expressed by Stan Loeber himself, who writes: "I shall continue in my efforts to sincerely help the amateur with his photographic problems."

New Yorkers will do well to pay attention to announcements of the series of splendid lectures which are held from time to time at the New York Institute of Photography, 10 West 33rd St., New York City, for many of these are open to the public. A recent program presented Mr. S. Mendelsohn, manufacturer of Mendelsohn's Speed Guns, who discussed the history of the Flash Synchronizer, demonstrated the accuracy of synchronization which can be obtained with good equipment and gave much good advice on photoflash technique.

Amateur moving picture enthusiasts who are interested in the latest improvements in showing home movies should communicate immediately with the Motion Picture Screen & Accessories Co., Inc., 351 West 52nd Street, New York City. This company has prepared an unusual Test Kit, consisting of a 5" x 7" sample of their new Wide Angle Crystal Beaded Screen Fabric, and a test chart for use in testing the quality of your projected movies. You can obtain this Test Kit, without charge or obligation, by writing direct to the Motion Picture Screen & Accessories Co., Inc.

Burleigh Brooks, Inc., New York City, have just announced the appointment of Mr. Louis Frater who will represent the Brooks organization and Goodspeed, Inc., in the states of Ohio, Illinois, Michigan, Indiana and Kentucky. Mr. Frater's long and varied association with the photographic industry will enable him to give helpful service to dealers handling the broad line of Bee Bee camera and photographic equipment; as well as the Goodspeed synchronizer.

Booklets and Catalogs

Now available, the 1941 Fotoshop Almanac Catalog, is a most unusual photographic book. Really three books in one, its Almanac Section features a Buyer's Guide and informative articles, and the Merchandise Directory includes a large selection of latest equipment at lowest prices. Within its beautiful four-color cover, almost 200 pages of meaty information tell the photo fan much he needs to know about choosing, buying, and using the tools of the world's greatest hobby.

The enlarged Almanac Section contains articles by Willard D. Morgan on flash photography, and by Paul Outerbridge on color photography, and also features material on filters, exposures, paper negatives, night photography, portraiture, movie photography, developing, printing, and enlarging, and also has six pages chockful of useful formulas, photo hints, and other important reference data.

The 1941 Fotoshop Almanac can be had free by every photo fan, only a 25c deposit being required which is refundable on a purchase of \$2 or more.

Secure your copy now by writing or calling at Fotoshop, Inc., 18 East 42nd Street or 136 West 32nd Street, New York City.

The Kalart Company, Inc., 915 Broadway, New York, N. Y., have just issued an interesting little booklet entitled "How To Put Life Into Your Pictures." This shows dozens of ways in which synchronized flash equipment can be used to help put pep and spontaneity into photographs. Priced at 10c the booklet can be obtained from the above address or from your dealer.

The Ampro Corporation, 2839-51 North Western Ave., Chicago, Ill., have just released a new catalogue which tells absolutely everything one could possibly want to know about Ampro Projectors and accessories. If you are interested in projectors, either sound or silent, 8 mm. or 16 mm., you should certainly study this excellent publication for it explains more about the refinements of good projection equipment than anything we have seen in a long time. Title of the booklet is "Ampro Precision Cine Equipment."

All those interested in visual education will be pleased to know that the Bell and Howell Company are now publishing an eight page magazine devoted to this subject, entitled "Filmo Visual Review." Bell and Howell state that all schools and visual educators previously receiving "Filmo Topics" have been placed on the mailing list for "Filmo Visual Review." If you would like to receive the new publication address Bell and Howell Co., 1801 Larchmont Avenue, Chicago, Ill.

Our Book Shelves

How To Build and Equip A Modern Dark-room. Nestor Barrett and Ralph Wyckoff. Published by Camera Craft Publishing Company, San Francisco. 136 pages, 6 x 8 3/4", Helix binding, price \$2.00.

The two authors of this book are particularly well fitted for the task which they set themselves. Both are amateur photographers of long experience so that they know what is needed in a darkroom. Mr. Barrett is an instructor in photography, while Mr. Wyckoff is a practicing architect, a member of The American Institute of Architects.

To our mind the most valuable aspect of the book is the fact that it applies modern architectural practice to the practical needs of the darkroom. The average layman has no conception of the hundreds of remarkably convenient appliances, devices and materials that are now on the market as an aid to modern construction. If he does have an inkling of them he thinks of them as expensive, or as only available for big jobs, etc. For example, here is a quotation from the book describing one of the sort of things we have in mind. The authors are discussing the continually expanding need for electrical outlets, and go on to say: "An excellent way to meet this problem is by the use of a continuous outlet system. This consists of a metal tube which can extend around the perimeter of the room and which is known to the trade as a plug mold. Resembling an ornamental moulding, it carries the electric wires and its surface is so arranged that specially made outlets can be inserted wherever desired without marring the appearance of the wall. The mold is 1 1/4" x 3/8" in size and will cost about 24 cents a lineal foot installed including the cost of the wire. Each outlet added to it will cost about 30 cents. The mold is also furnished with a variety of tees, elbows, telephone and radio outlets so that it can be adopted to any room or requirement." This is just one of dozens of applications of modern construction practice to darkroom needs, contained in this book. Notice that costs, sizes and trade names are given. That practice is consistently followed throughout.

The book begins with a consideration of the work to be done in the darkroom and the problems which must be met. Chapter two covers walls, floors and ceilings. The materials to be used are carefully described and full directions for construction are given, including the laying of concrete floors. Various methods of making doors and windows light-tight are also discussed. Floor coverings, painting, insulation and the problem of the damp basement are also thoroughly treated.

Chapter three takes up the very important subject of ventilation. The reader will be amazed to discover how cheaply and easily

he can obtain a darkroom with perfect ventilation and with FILTERED air. We have already given the reader some suggestion of the practical nature of the authors' discussion of darkroom lighting. The subject is covered very completely. Chapter five takes up the problems of sinks, drainage and water supply. All types of sinks are discussed and compared as to usefulness and cost, and construction details are given. The plumbing system is carefully described. The problem of drainage in a basement which is below the sewer level is thoroughly dealt with. Chapter six takes up the first of several darkroom plans. This chapter describes a portable self-contained darkroom for the apartment dweller. In use this darkroom fits over a standard bathtub, and can be closed up like a suitcase and stored out of the way when work is done. Fully detailed drawings of each darkroom described are a feature of the book. The drawings are to scale, are reproduced full page size and are executed by architect Wyckoff, so the reader can have every confidence in their accuracy and completeness.

Chapter seven describes the minimum basic plan for a built-in darkroom. This is designed so that it can be added to step by step as time and money permit, until the complete darkroom as recommended by the authors is finally obtained. The complete, streamlined photographic laboratory is described next. The authors have worked out many conveniences of lay-out and detail which are too numerous to mention here. Great emphasis is placed on "production line" lay-out and on building for cleanliness. This darkroom can be kept spick and span with a minimum of effort.

Chapter eight discusses a de luxe photographic installation for the photographer who does both still and movie work. This visualizes a darkroom, an adjoining room which serves as movie editing room and projection booth and which in turn connects with a rumpus room which acts as a miniature theater.

Chapter nine deals with the construction of essential darkroom equipment and various miscellaneous details in the darkroom. For example an adjustable vertical enlarging easel is described which is a marvel of efficiency and which any one could build in half an hour at a cost of less than \$2.00. A horizontal enlarging easel is also described as are drying cabinets for films and prints, racks for hanging various equipment, etc. In the appendix, instructions are given for constructing special apparatus, such as small developing tanks, etc.

This book is just as valuable to the photographer who already has a darkroom as to the one who is planning to build one, for many of the ideas in this book can be added to any existing darkroom.

CLASSIFIED ADVERTISEMENTS

Rate: 6 cents a word; minimum \$1.50 each insertion, prepaid.

Items advertised in these columns may be purchased C.O.D. subject to examination and C.O.D. subject to ten days free trial if sent by express. If in doubt, safeguard yourself.

OUTFITS FOR SALE

◆One brand new Pony Premo 5x7 #2 fitted with Cooke f:4.5 8½" lens in Multi-Speed #1 with 3 dble. holders, carrying case \$50.00, which is less than ½ the value of the lens alone. One slightly used Voigtlander Alpine 3¼x4¼ fitted with Dynar f:6, 4¾" lens in Multi-Speed #0 with 6 metal holders and carrying case \$35.00, which again is less than ½ the value of the lens. A. H. Hotte, Rte. 1, Box 47, Salem, Oregon.

◆Folmer & Schwing Home Portrait Camera, Cooke Lens f: 5.6, Packard Ideal Shutter \$90.00. Korona View Camera 8x10, Wollensak Velostigmat Lens f:4.5, Autax Shutter \$85.00. Mrs. Ilda A. Cameron, Thermopolis, Wyoming.

◆New Auto Rolleiflex with Abbey flashgun, proxars, filters, lens shade, case and Kodachrome adapter. Price \$115.00, Box 912, Westwood, California.

◆Ihagee Steroscopic camera, good condition, using 130 roll film, recently overhauled, Goerletz lenses. Bargain at \$16.50 for quick cash sale. R. Strong, Russ Building, San Francisco, Calif.

◆Both cameras in excellent condition. 8x10 No. 2 Eastman View Camera, Bausch & Lomb Protar VII, f:6.3, 9¼"x16½"x16½" in Volute shutter with duplicate, new shutter, 4 Wratten 3" square filters K2, K3, A, G, and holder, 11 film holders, tripod, carrying case. Outfit \$205.50. 5x7 Press Graflex, 5"x8" f:4.5 Tessar lens, 2 magazine film holders and case. Outfit \$49.50 F.O.B. Spokane. Will ship collect with inspection privileges. D. C. Guilbert, W528-26th, Spokane, Wash.

◆2¼x3¼" Curtis Color Scout with Dogmar 7½" f:4.5 complete with compensating filter, like new \$300.00. Foreman's Camera Shop, 92 Third St., San Mateo, California.

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known to Graflex Dealers on the Coast. John E. Butler, Controller is in charge of the offices, and Irving Jacobson is Service Manager. The Polmer Graflex Corporation cordially invites all its friends to visit its Pacific Coast home in Los Angeles.

Burleigh Brooks, Inc., New York City, have just announced the appointment of Mr. E. L. Berman who will represent the Brooks organization in the states of Wisconsin, Illinois, Indiana, Iowa and Minnesota. Mr. Berman's long and varied association with the photographic industry will enable him to give helpful service to dealers handling the broad line of Bee Bee camera and photographic equipment in this territory. Two other changes also have been announced by Brooks regarding representatives' territories. Mr. J. Deitemeyer, whose territory has included New York and the New England states, will in the future also cover Delaware and New Jersey. And Mr. L. Frater, southern representative of Bee Bee, will also cover Maryland and Washington, D.C. in the future.

New responsibilities in the management of the Eastman Kodak Company were imposed last week (Wednesday, May 7th) by the board of directors of the company. To the office of president, the board elected Thomas Jean Hargrave, native of Nebraska, graduate of the Harvard Law School, cavalry private on the Mexican border in 1916 and 1917, machine-gun captain in France in 1918 and winner of the Distinguished Service Cross and the Croix de Guerre, member of a Rochester law firm after the war, secretary of the Kodak Company since 1928 and vice-president since 1932. Frank W. Lovejoy, president and general manager for the past seven years and veteran of 44 years' service with Kodak, was elected chairman of the board of directors. William G. Stuber, chairman and himself a 47-year Eastman veteran, was elected to the newly created office of honorary chairman. The title and duties of general manager passed from Mr. Lovejoy to Albert F. Sulzer, vice-president, who came to the Kodak Park Works as an assistant chemist soon after his graduation from the Massachusetts Institute of Technology in 1901, was promoted through various positions of administrative responsibilities until he was manager of Kodak Park, the largest photographic plant in the world, and for the past five years has been assistant general manager of the company. Dr. Albert K. Chapman, a physicist who became assistant vice-president and production manager, last week was elected vice-president and assistant general manager. Milton K. Robinson became secretary of the company, and was succeeded as assistant secretary by William F. Shepard.

The Sharman Camera Works, famous San Francisco, Calif., repair service and specialists in construction will move to a new location on June 1st, 1941. In the new, larger quarters, at 251 Post St., streamlined layout of equipment will permit faster service. In addition to their experienced repair service, Sharman manufactures the popular Sharman Tripods; spring backs for Maximar, Recomar, Ideal and similar cameras; Bantam film adapters for Rollei and other cameras; and are prepared to construct all kinds of special equipment to order. Sharman is also

producing a special attachment for the diaphragm adjustment of Graflex cameras, which permits the operator to focus at the largest aperture and then instantly switch to a previously selected opening, without looking at the lens markings. Ask them about this new attachment which will increase the speed of operation of your Graflex. Sharman is also San Francisco headquarters for Kalart service and installations. Write the Sharman Camera Works, 251 Post St., San Francisco, Calif., for details on any of their many services.

A special bargain in print washers is now being offered by the Eddy Washer Co., 1905 Thurston, Racine, Wis. A 50% discount is now available on 1940 Models of these compact, efficient washers. This offer is good only while the supply lasts and those interested are urged to act quickly. Write the above address for complete details.

Professional photographers throughout the country will be saddened by the news of the death of Hahnemann Lancaster on May 6th, whose life was devoted to the interests of photography. Mr. Lancaster began his career in Omaha, Nebraska, where he opened a studio many years ago. Active in promoting the cause of photography, he was elected President of the Omaha Photographers' Association. In 1918, Mr. Lancaster moved to California and opened a studio in Martinez. Except for a short period when he operated a San Francisco studio, he continued his work in Martinez. Mr. Lancaster always gave his best to the service of photography and he was elected President of the Pacific International Photographers' Association several times. In 1936, illness forced him to retire and since that time he lived with his daughter Mrs. Florence Hertzog, in Oakland, Calif. In addition to Mrs. Hertzog, Mr. Lancaster was survived by two other daughters, Mrs. E. R. Adkins, of San Francisco and Mrs. E. T. Stoltzenberg, of Berkeley; and by a son, Mr. E. J. Lancaster, of Oakland.

Booklets and Catalogs

A new 139-page equipment and accessories catalog No. 541 has just been published by Willoughbys, 110 W. 32nd St., New York City. Willoughbys has also issued a new book list of popular titles. Both of these items are available without charge upon request to the above address.

A Filmsound Library Supplement has been published by the Bell & Howell Co., 1801 Larchmont Ave., Chicago, Ill. It lists all the new educational films issued since the catalog was presented in December.

A method by which expert amateur photographers can determine the resolving power of a camera lens has been developed by the National Bureau of Standards. Circular C428, outlines the method, and copies may be obtained from the Superintendent of Documents, Washington, D.C., at 40c each.

A new Spring Bulletin has just been issued by the Fotoshop, 18 East 42nd St., New York City. Forty large, illustrated pages. Write the above address for your copy.

A catalog of Early Summer Specials of 64-pages is now available upon request from the Central Camera Co., 230 S. Wabash Ave., Chicago, Ill. It lists all kinds of photographic supplies.

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Club Notes

Club Activities

The Diamond District Camera Club, of Oakland, Calif., which was organized only three months ago, reports an active membership of more than sixty. The club welcomes visitors at its meetings and will be glad to exchange program ideas with other groups. Correspondence should be addressed to Mrs. Edwin, Secretary, 2118 Hopkins St., Oakland, Calif.

The Women's Photographic Society of Cleveland have just moved to new club rooms at 204 Erie Bldg., 9th Street and Prospect Avenue, Cleveland, Ohio. The new quarters boast two large darkrooms, a combination reception and office room, a studio, a lecture hall and a developing room. In such sumptuous quarters, the club is sure to add to the many honors it has already won.

"Gamma" will be the name of a new publication of the Southern California Council of Camera Clubs. As yet the publication of the first issue has not been announced but it is expected to be ready for distribution shortly.

The Boston Camera Club, of Boston, Mass., recently enjoyed an unusual lecture by Mr. Ed Jones, who has just returned from Europe where he represented American publications, including the magazine "Life." His exciting experiences as a roving photographer provided fascinating fare for the camera club members and guests.

The Atlanta Camera Club, of Atlanta, Ga., enjoyed a particularly interesting talk on "Photography in Crime Detection," by J. M. Bransky of the United States Treasury Department. Mr. Bransky supplemented his lecture with a movie that was as fascinating as it was educational, entitled "Ruses of Pockets."

The Rockefeller Center Camera Club, of New York City, announce the complete success of their Third National Photographic Exhibition. A total of 216 prints were selected for hanging from 491 prints entered.

The Bell Camera Club of Chicago, Ill., meets on a very high plane, at least physically speaking, for they hold their meetings on the 18th floor of the Bell Telephone Building. The group is fortunate in having at the disposal of the members a selection of more than 70 books on photography which are included in the Bell Company Library.

The members of the California Camera Club, of San Francisco, are now engaged in completely refurbishing their studio. A complete painting job from floor to ceiling, a new backdrop and new lights are features of the improvements. All the work is being done voluntarily by the membership.

The Miniature Camera Club of Philadelphia reports that they have just completed a very successful year. An active member-

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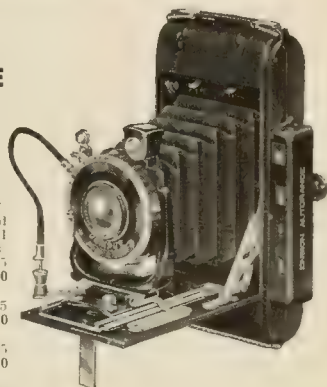
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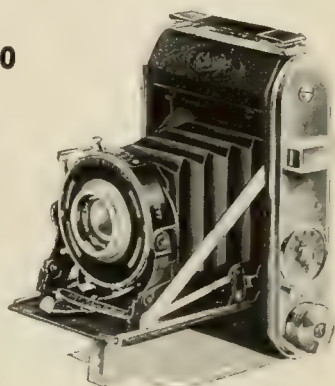
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(Continued from page 339)

ip of more than two hundred would certainly indicate that this group is in a particularly healthy condition. They present a diversified series of programs. Information regarding the club's activities may be obtained from J. F. McGonigal, 166 Fernbrook Ave., Wyncote, Pa.

An opportunity for amateur camera enthusiasts to exhibit their work will be offered by the San Francisco Museum of Art starting Monday evening, June 16th, at 8:00 p.m. All amateur photographers are invited to exhibit their snapshots, color slides, 8 in. and 16 mm. moving picture films in competition for the special prize awards given by the Photo Forum. Prizes are offered each week for the separate classes of material on the basis of composition and technique and the weekly winners are eligible to exhibit their work and compete for the grand prizes during the final invitational showing on August 4th.

Amateur photographers interested in exhibiting their prints are asked to leave not more than three samples of their work at the San Francisco Museum of Art, located at the Civic Center. The prints will be hung in one of the museum galleries. As the purpose of the Photo Forum is to give amateur camera enthusiasts constructive advice, helpful suggestions will be placed by each picture. The prints submitted for the program should be mounted, the minimum size including mat is 4 x 6 inches and the maximum size is 18 x 22 inches. Those interested in showing their moving pictures or color slides should fill out a registration blank that may be obtained from the Information Desk at the Museum. Camera amateurs exhibiting photographs, moving pictures or color slides are admitted without charge on the evening their work is exhibited. The Photo Forum consists of a series of eight meetings and offers an opportunity for camera amateurs to exhibit their work and discuss their particular problems with camera authorities under ideal conditions. As an added attraction, outstanding amateur films and slides will be shown and talks on various phases of photography will be presented.

The Maywood Camera Club, of Maywood, N.J., recently celebrated its seventh anniversary. Organized in June of 1934, with fifty members, the group has now grown to one of the country's most prominent organizations. The excellence of the club's activities and spirit is testified by the fact that all of the original five charter members are still active.

The Inter-American Photographic Salon, sponsored by the Arlington Camera Club, of Arlington, Va., is arranging to exchange photographic exhibits between North and South America. Closing date for entries to the salon is Sept. 1st, 1941. Photographers are urged to give their heartiest support to the salon. Entry blanks may be obtained by writing Mary Eleanor Browning, Hotel Twenty-Four Hundred, Sixteenth Street, Washington, D. C.

Announcement of the Nature Salon of the Photographic Society of America marks the entrance of the PSA into greater activity in

(Continued on page 343)



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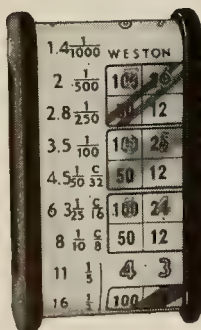
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(Continued from page 341)

the field of nature photography. Four divisions are planned for the Salon, which has October 1st for a closing date, and will open in Chicago in conjunction with the PSA Convention there October 24th. The Nature Salon is open to any photographer in the world. Salon Chairman is Russell Gray, 1530 Locust St., Philadelphia, Pa., from whom blanks may be obtained, and who wishes it understood that although pictorial quality will be important in the judging, the particular desire of the nature division of the PSA is to receive prints primarily intended as nature pictures.

The Miniature Camera Club of Philadelphia recently held a "Women's Night" at which the program and activities were entirely conducted by the ladies. Pat Livenght, famous woman photographer, gave an interesting demonstration of makeup, posing and lighting.

The Albany Camera Club, of Albany, N. Y., now organizing a Movie Section and invite all amateur movie makers in that area to take part in its activities. Further information may be obtained from the Y.M.C.A., Steuben St., Albany, N. Y.

The Maywood Camera Club, of Maywood, N. J., has added a Color Print Classification to its monthly print competition. Though the number of entries is expected to be comparatively small, they are encouraging for workers by making the same awards in other classifications.

"Focus," bulletin of the Toronto Camera Club, of Toronto, Canada, reported recently the prosperous state of their well known group. At present they have a total membership of 161, of which 77 are active members.

The Central California Council of Camera Clubs has introduced a Kodachrome Interchange between the member clubs in recognition of the constantly increasing interest in color photography. Only slides will be exchanged and must be mounted in glass to be acceptable.

The Rockefeller Center Camera Club, of New York City, are now issuing Courtesy Cards to all members. These cards are presented to interested non-members with an invitation to visit the club. The prospective member then receives a notice of the next meeting and a copy of the club's excellent bulletin, "Time Exposure."

The Chicago Area Camera Clubs Association is well advanced on its Historical Pictures Project. First, the Elmhurst club took pictures of historical buildings and locations in Elmhurst and gave the pictures to the library. Next, members of various Association clubs will visit Downers Grove during May to help the local club obtain pictures for the Downers Grove Historical Society. And so on, in turn, for the many communities in which there are Association clubs. The project was undertaken as a community service for which camera clubs are well fitted.

Members called into military service from the Chicago Area Camera Clubs Association will not lack photographic reading material.

(Continued on page 345)

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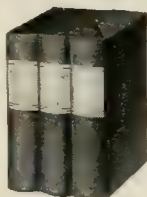
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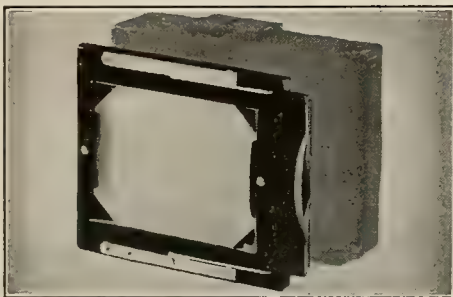
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• Mortensen has spent the last three years in research, making pictures, and doing the actual writing. The result is a book that tells the photographer everything that there is to be known on how to make perfect negatives.

• In general it is Mr. Mortensen's thesis that the demands of the rank amateur have resulted in negatives which are overexposed and underdeveloped, making for negative without gradation and brilliance. He shows how the exact reverse of this principle is the correct one, how by slight underexposure and prolonged development one can achieve miracles of negatives, that have been entirely undreamt of before by all photographers except the most advanced technical worker. He shows how it is possible for every amateur to adopt this procedure.

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(Continued from page 343)

camera magazines from club libraries and on individuals are accumulated by the Association and sent to service members periodically. These members are in both branches the service, stationed in the South and east.

The Rockefeller Center Camera Club of New York City adopted a unique subject for their April competition. The subject, "photographing a hotel," offered the members an unusual type of subject matter. Through the cooperation of the management of the Hotel Astoria, the entire establishment was placed at the disposal of the camera club members' uses.

The Orange Camera Club of East Orange, N.J., recently issued a warning to its members to take care of the direction in which they point their cameras during this time when national defense is the prime consideration in everyone's mind. In the future, members of this club will carry identification cards which will be used to explain the photographer's activity to law enforcement officers.

The Light and Shadow Club of San Jose, California, and the Camera Club of Oakland, California, recently held a joint picnic at Sun Rock, San Jose. With the facilities of the Park at their disposal and a free reign over their cameras, we are sure the members of both groups had a most enjoyable day.

The Miniature Camera Club of Philadelphia recently visited the Baltimore Camera Club of Baltimore, Md. The Philadelphia group was enthusiastically received and treated to an excellent dinner, which they paid by entertaining their hosts with a series of short talks on their photographic activities.

The Alameda Photographic Society, Alameda, California, were able to arrange an early morning preview of the famous Oakland Flower Show. Certainly this was a rare opportunity and one which most photographers would have given their eye teeth to participate in.

The Camera Guild of Cleveland, Ohio, have planned an extensive program for the coming summer. Excursions and trips to interesting photographic locations have been planned to take the place of regular club meetings during the summer months. This is an unusual departure from the standard club procedure of suspending activities during the summer.

Exhibitions

An exhibition of 400 prints by students of the Clarence H. White School of Photography, 32 W. 74th St., New York City, is being displayed at the school daily except weekends, from 10:00 to 5:00. The exhibit will continue until July 15th.

The 32 prize-winning pictures by Fotop patrons Roy Pinney and Nathaniel Eld, currently on exhibition at 18 East 2nd Street, New York City, have been turned into a permanent exhibit to be known as the Fotoshop Prize-Winning Pic-

(Continued on page 347)

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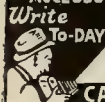
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(Continued from page 345)

Collection. From time to time other prominent prize-winning pictures by Fotoshop patrons will be added to the collection. In response to numerous requests from various groups, Fotoshop has decided to make the Fotoshop Prize-Winning Picture Collection available to the nation's camera clubs this fall and winter. In this way photographers everywhere, who would otherwise find it impossible to see these unusual pictures, will now have an opportunity to get a first-hand glimpse of the Fotoshop collection. The Boston Camera Club has already scheduled the prize-winning collection for the next two weeks in October. Other camera clubs interested in having the exhibit which will be available September first should write Carl Bakal, care of Fotoshop. The following information should be included in your reservation: name of club, age of club, number of members, and the period for which they would like to have the show.

The first annual Miami Camera Club exhibit, "Tropicana" is now available for exhibition to Camera clubs throughout the United States. Clubs wishing to see the exhibit should write to the Miami Camera Club, P.O. Box 4731, Miami, Florida, for dates when the exhibit will be in their localities.

The Chicago Camera Club, 137 N. Wabash Avenue, Chicago, Ill., maintains continuous exhibitions of fine photographs in the club gallery. Photographers are generously invited to view these excellent prints. During July, shows of the Oak Park Camera Club and the Rock Island Camera Club will be displayed. From June 4th to June 17th, the American Photography Prize Prints will be on exhibition and from June 18th to July 1st, a fine collection of prints by E. C. and Polyn Crossett will be shown.

Photographers in the Boston, Mass. area should make a point of visiting the studios of the Boston Camera Club, 351 Newbury Street, Boston, Mass., where excellent exhibitions of photographs are almost continuously on display.

A fine collection of photographs by Mr. and Mrs. Darvas of Cleveland, Ohio, is available to recognized photographic clubs having facilities for displaying prints. This collection was recently exhibited by the Scarab Photographic Society of Detroit, and by the J. L. Brown Company, Detroit's leading department store. Photographers and the public will receive the exhibition enthusiastically. Arrangements for the loan of the prints may be made by communicating with Mr. C. J. Harmatz, 3078 E. Grand Boulevard, Detroit, Michigan.

The Second Annual Photographic Contest at the Bronx Zoo and the Aquarium has been announced by the New York Zoological Society. The contest began on May 15th and continues through August 15th. \$75.00 in prizes will be awarded. Entry blanks and complete rules may be obtained from the Photo Shop at the Zoo or at the Aquarium, Battery Park.

(Continued on page 397)



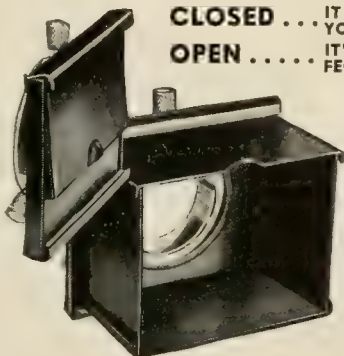
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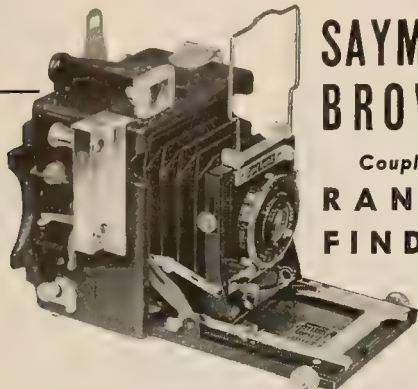
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"Baby in Blue"

Jac Bradley

Paint With Your Camera

Jac Bradley, D. Sc.

"BUT you're an artist," protested the young color photographer, turning from a scrutiny of my *Baby In Blue*. "That's why you do things like that with a color camera."

"Sure, I'm an artist," I replied with a grin, "but so are you."

"Why, I couldn't paint a barn—much less a portrait," he stated ruefully. "I'd be about as good with a palette and brush as a chicken with a harmonica."

I couldn't help chuckling at that, but I was quite serious when I pointed to his color camera and said, "You have the greatest palette in the world right there. You can paint anything and everything with that camera. All you need is a knowledge of color harmony and composition."

"How do I get that?" he asked.

And for the rest of the afternoon, we talked about color. From that discussion, and others like it, came the idea for this article. For there are many amateurs—and professionals, too—who have been thinking of color photography only in terms of carbony prints, separation negatives and such mechanical aspects. These are, of course, essential—but we mustn't forget the artistic import of color photography.

For color photography is an art. Recently emerged from its swaddling clothes, it is one of the most democratic of all the arts. Not only does it delight the esthetic eye of the connoisseur, but it actually sells merchandise to Mr. and Mrs. John Q. Public.

The chiseled perfection of detail in a good color photograph and its ability to render texture, is of greater value to the advertising world than

the shorthand of the artist's brush. Let the art critics scream that a man makes color photographs because he cannot paint. The fact remains that the color photographer is called upon to play the role of artist.

And the first lesson to an artist is the study of color. He must obtain correct color harmony in his arrangement or composition. He must think in terms of rhythmic color. He must inject into his photographic painting that dramatic element, that quality of surprise, which can only be achieved through a thorough understanding of color values and harmonies.

Every great age has produced its individual palette. The Persians worked with brilliant turquoise, yellow, rose and reds. The Orientals loved gentle greens, brown-yellows, rich auverine, emerald green and the deep red prepared from the salts of copper. In early Italy the palette was gay with clear vermilion, ultramarine, pink, yellow-green, brown and purple, to be intensified later by the majestic color harmonies of Titian—great masses of amber-orange, deep rose, crimson, olive-green, rich blues and warm flesh tones.

In contrast came Rembrandt, who painted in the dull misty foglands with a palette steeped in subdued browns, grays, blacks and reds, to be followed by the grayed palette of Corot and Loraine.

Then like a clap of thunder in a quiet summer sky burst the brilliance of the impressionists. Their amazing combinations and dazzling contrasts of vivid hues reawakened the world to a consciousness of the power of color. With their brushes they paved the way for the unlimited possibilities of the color camera.

Not only do the masterpieces of past and present offer inspiration and challenge to color photography, but the whole of nature supplies us with an abundance of glorious colors. And we do not have to work for weeks or months—or even years—to achieve a single painting, even one copy of which requires many days of painstaking labor. Outdoors or in our studios, under sunshine or artificial light, we can with one click of our camera record a work of art. And we can reproduce that same photographic painting as many times as we like, each “copy” an original.

But we must learn the tools of our trade, not merely the mechanical tools, but the artistic elements as well.

In color we deal with the same principles of harmony as music. As a matter of fact, music is often spoken of as having color; an orchestra is said to have color quality, an atmospheric overtone of color which comes from its volume of harmonic sound.

Just as the musician deals with tone, pitch, chord, modulation, so the colorist deals with definite characteristics peculiar to color. Color, like music, has its intensities of values, its full and half tones and even closer harmonies. It has the same means of creating dramatic effect by transposing intensities in contrasting values. Color has the visual quality of vibrancy, just as music has the audible quality of resonance.

Color has given photography a tremendous carrying power through the rhythmic vibration of light. Therefore, if a color does not vibrate in harmony with other colors in a given composition, it creates discord. Just as a musical composition is impaired if even a single note is “off pitch,” so

an otherwise beautiful print is marred if one single color note is "out of harmony."

All things that exist in this world are governed by physical laws, and so therefore, is color. The modern color photographer who wishes to work efficiently and successfully should be as familiar with the optics which pertain to color as he is with the optics of his own lens or the mechanical process of his printing system. Through my experience in the art world as well as in the photographic field, I find that the student of color photography is usually bewildered in his approach to color chiefly because he does not deal directly with the blending of colors as does a portrait painter or designer, that is, with the actual mixing of the basic pigments. In reality, however, this is exactly what he is doing when he arranges a composition before his camera. Where the painter chooses his color palette in oils, the photographer makes up his palette of objects of color to be blended and balanced into harmonious rhythm.

The artist must mix his pigments to vary their tonal quality or intensity. The color photographer controls his color values through his lighting—that is, a color may be intensified or neutralized by the amount of light it receives. For instance, if we use vermilion velvet in a composition, the color will appear very brilliant where the key light source strikes, but the tone will be more mellow or neutral where the halftones glide into the shadows. The absence of direct light reduces the intensity of color, and gives us truer color values. When color is not generalized by direct hot light, the contrast is lessened, and therefore the middle tones blend softly through the deeper shadow tones to truer color depths. Thus the brilliancy and contrast of any color may be controlled by the intensity of the light source. This gives the color photographer his greatest advantage, for he paints in his color tones or values with his light intensity.

Here we see once more the similarity between music and color. Just as the conductor by the skillful wielding of his baton controls the volume of harmonic sound from the orchestra, so the photographer through the manipulation of light controls the tones of color harmony in his composition.

For true and complete harmony in any composition, however, we must not only be conscious of tonal quality by light control, but we are also confronted with the problem of color combination and color balance.

By color balance we mean the weight or intensity of the color. Equal areas of different colors do not always balance each other because all colors of the spectrum do not reach their highest intensity at the same level of tone. For example, pure red and pure yellow are much more intense and yet much lighter in tone than pure blue or pure violet.

One simple rule may be remembered here: The more brilliant a color, the more weight it carries, and therefore the less space it should occupy in a balanced composition. In other words, a small area of a brilliant color will balance a much larger space of a less intense color (or a color area that is made less intense by the absence of direct light).

Many attempts have been made to devise mathematical rules for color balance, but since the relative potency of colors varies with their position and surroundings, all formulae must prove rather inadequate. However, until the student has developed the power of discrimination between satis-

factory and unsatisfactory color balance through experience, he cannot depend upon his innate sense of proportion for guidance.

There are certain rules to be learned as a starting or key point for working out color combinations and balance:

The student of color photography will find the simplified harmony and color charts a definite and simple solution to the dreaded and often bewildering problem of color balance and harmony.

The following harmony chart should be memorized before experiments are made with the color charts.

Tables to remember:

HARMONIES

Opposites

- (a) Yellow—Blue
- (b) Orange—Turquoise
- (c) Red—Seagreen
- (d) Purple—Leafgreen

Monochrome

Tone values of a single hue.

Analogous

- (a) Leafgreen—Yellow—Orange
- (b) Orange—Red—Purple
- (c) Purple—Blue—Turquoise
- (d) Turquoise—Seagreen—Leafgreen

Points to remember:

1. Opposite colors produce the brightest effect.
2. Analogous colors are colors very closely related.
3. Monochromes are pictures produced in several shades of one color.

The following charts offer a mechanical aid to the working out of these color harmonies:

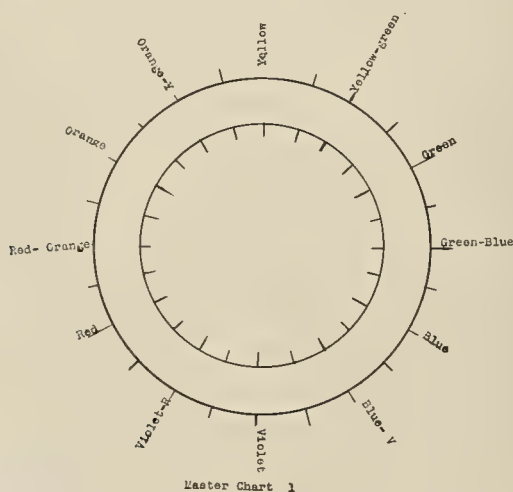


CHART 1. Master chart, indicating a complete color circle of twelve colors. Placement on the chart shows relationships of these colors to one another.

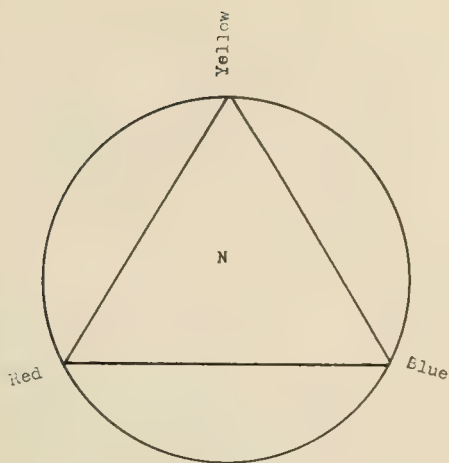


Chart 2

CHART 2. If we were limited to three fixed colors, these would be the primaries, RED, YELLOW and BLUE. The triangle in this chart shows their equi-distant points on the color circle. This combination makes an uninteresting balance because the color-intervals are monotonously regular. By revolving the triangle within the circle, the position of the points may be changed, but there would be no advantage since the intervals remain the same.

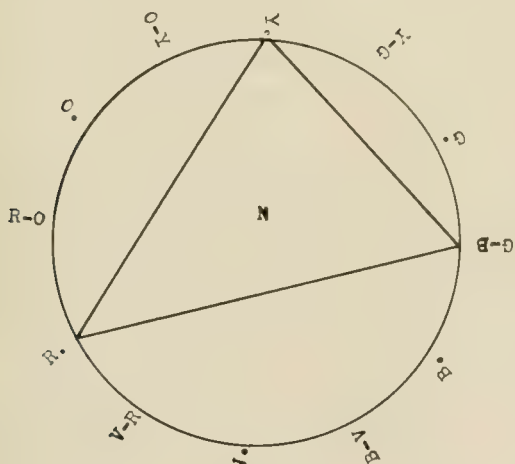


Chart 3

CHART 3. We may, however, gain the greatest possible variety of harmonious contrasts by taking as a basis three colors at points of unequal intervals. This new triangle has a definite bias. Two of the points fall on

harmonious contrast. These three colors enhance one another and avoid the clash of direct opposites which we had in Chart 2. This new triangle may now be revolved within the Color Circle to obtain various three-color combinations, the shortest line of the triangle always connecting two harmonious contrasts and the long line touching a direct opposite, resulting in a combination which contains the elements of rhythm and harmony. The center area at all times remains of a neutral density.

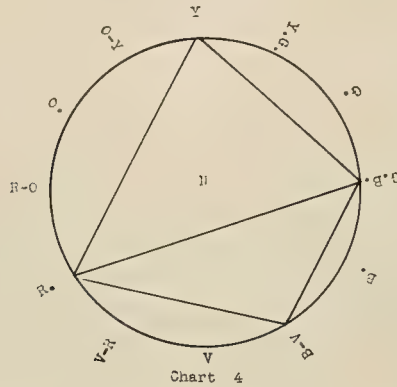


CHART 4. If a fourth point is added to the triangle, immediately an important new area comes under control. As the figure is drawn here, this new point is shown as Blue-Violet (BV), which you will notice just avoids the opposite of Yellow (or direct contrast). This is the largest area that can be added and still avoid direct opposites.

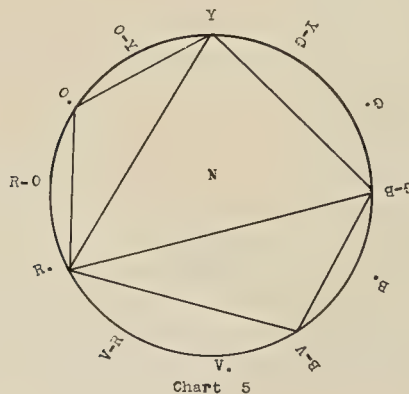


CHART 5. The next most important point, still avoiding direct opposites, is Orange (O). These five colors now provide a palette for powerful and harmonious combinations, each color being strongly enhanced by its nearly opposite color. This area is the greatest field of color that five points can include within a circle of twelve colors.

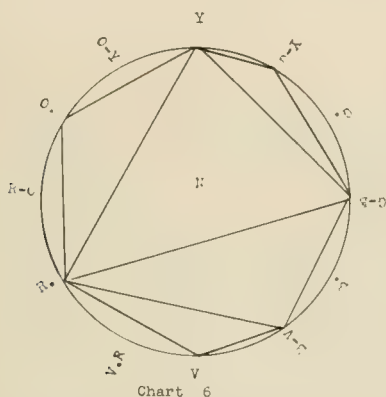


CHART 6. If an additional color is desired, only one more point can be added without producing an opposite clash of colors. As the figure is drawn, this could be either Yellow-Green (YG) or Red-Violet (RV). Either of these points will add the next largest area still available without producing a clash by direct opposition. This system of triangles, as well as those above, may be revolved within the Color Circle to give varying harmonious color combinations.

These charts are given only as a palette from which to select simple color harmonies, and no attempt should be made by the student to use in one combination the complete palette. He should rely upon the individual triangles of the circle for his combinations. In this manner, he will achieve that simplicity in color harmony and balance which is always most desirable, and which can at all times be held under perfect control.

For example, *Baby In Blue* is worked out in simplified color harmonies. Various tones of blue comprise almost the entire composition, relying only upon the warm flesh tones and pink ribbon to act as a nearly direct opposite for balance. This corresponds on the color charts to the triangles of the key points Blue-Green (BG), Blue-Violet (BV) and Red (R), with the neutral area of white. But this simple combination of colors results, as you can see, in a harmonious composition that has the rich quality of a painting.

So, working from a basic palette, select your harmonious color combinations, and *paint with your camera!*

Make Up For Portraiture

William Mortensen

Part III. Methods For Correction

LAST month we discussed the general principles involved in the corrective use of make up. In this connection we listed the seven basic facial shapes:

1. The diamond-shaped face.
2. The inverted triangular face.
3. The triangular face.
4. The round face.
5. The square face.
6. The oblong face.
7. THE OVAL FACE.

The oval type of face is, we stated, generally accepted as the standard of feminine beauty. The major part of corrective make up is devoted to making the other types suggest the lineaments of the favored oval shape. To a lesser extent, corrective make up is also concerned with measures for improving, or subordinating faulty individual features.

The procedures for corrective make up to be discussed in this article can be described in general terms only, as each person constitutes a separate and individual problem. Corrective make up, as we pointed out last month, requires, not merely skill, but discretion in its use. Over-correction is worse than no correction at all, for it actually draws attention to the flaws it is trying to conceal.

There are three general methods followed in corrective make up:

1. Reconstruction of *contours*, particularly of lips and eyebrows.
2. Reconstruction of *masses* by light and shade.
3. Reconstruction of *surrounding shapes*. (Most important of these surrounding shapes is that created by the hair. Other surrounding shapes that affect the apparent shape of the face are those of earrings, neckline, etc.*)

* A full account of the influence of jewelry and neckline on facial shape will be found in THE MODEL, Chapter Seven.

DIAMOND

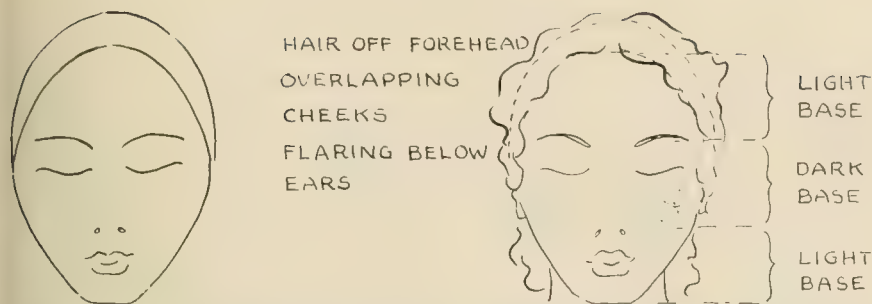


Figure 1. Correcting the diamond shaped face. Shaded area indicates position of rouge.

Making up the Diamond-Shaped Face.

In a diamond-shaped face we have to deal with a narrow forehead and chin, combined with excessive width across the middle of the face. (See Figure 1.)

In order to bring this type of face nearer to the oval ideal, it is necessary to create an impression of widened forehead and narrowed center. The arrangement of the hair is important in this case. Keep it off the forehead, taking advantage of all possible width here. Loose curls or waves flat to the face near the cheekbones serve to reduce the width across the central zone. Below the ears, the hair should be allowed to flare somewhat, compensating for the narrowness of the chin.

Careful combination of *two tones* of base will also help in correcting this type. The two tones should differ only slightly: with the Anatole Robbins make up kit,* for instance, use two adjacent tones—Nos. 25 and 28, or Nos. 28 and 29. The lighter base should be used on the forehead and chin and the darker one across the center of the face.

Avoid any elaborate make up of the eyes and follow the natural contour of the brows. Too much emphasis on the eyes draws attention to the disproportionate width of the face.

The Inverted Triangle.

With this type also the arrangement of the hair is an important factor in suggesting more nearly oval contours. (Figure 2.) The hair should be built up a bit on top in order to counteract the flatness of the upper contour line. Brush the hair behind the ears. Exposing the ears suggests greater width across the center of the face and compensates for the dwindling lines of the triangle. Dress the hair low to give increased width and softness to the lower part of the face.

Keep the brows natural, starting them directly above the tear ducts. Make them full rather than narrow, as narrow brows accentuate the pinched character of this type of face.

* See article in May Camera Craft.

INVERTED TRIANGLE



Figure 2. Correcting the inverted triangular face. Shaded area indicates position of rouge.

Arch the mouth slightly for increased softness, but don't widen it at the corners.

The Triangle.

Here we have a shape of face that is widely at odds with the favored oval type. (Figure 3.) The width at the bottom and narrowness at the top must both be compensated for.

Here, again, the arrangement of the hair is an essential part of the corrective procedure. Building up the hair at the sides of the head gives increased height to the face and width to the forehead. Brush in soft waves along the jaw line so as to reduce the width of the lower part of the face.

Accentuate the width of the forehead by applying base one shade lighter than that used on the rest of the face. If the chin tends to recede—as is sometimes the case with this type of face—use a touch of the lighter base on the tip.

The brows should start from points a little outside the tear ducts, suggesting additional width across the eyes. Arch the brows slightly for softer effect.

TRIANGLE

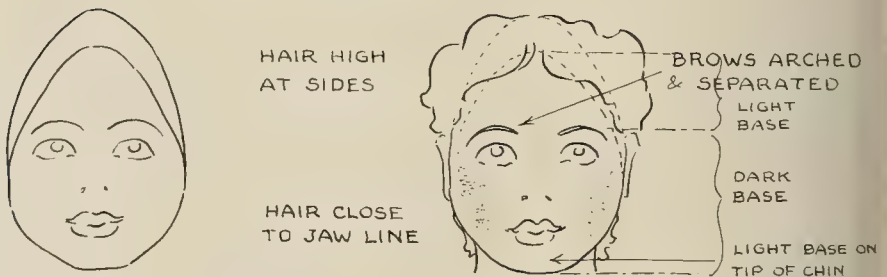


Figure 3. Correcting the triangular face. Shaded area indicates position of rouge.

ROUND



Figure 4. Correcting the round face. Shaded area indicates position of rouge.

The Round Face.

This type of face approximates the oval shape except that it is too short. Avoid severity in hair arrangement. A slight wave or curl is preferable, with the hair line kept soft. The hair should be worn low on the neck, with the principal fullness below the jaw line. This arrangement gives added length. (Figure 4.)

The charm of this type of face is accented by a fully curved eyebrow and lip contour.

The Square.

An illusion of roundness and additional length must be sought for in making up this type of face.

Roundness is suggested by a soft hair style. A diagonal part will help mitigate the straight lines of the face. (Figure 5.) Brows should be arched

SQUARE



Figure 5. Correcting the square face. Shaded area indicates position of rouge.

OBLONG



Figure 6. Correcting the oblong face. Shaded area indicates position of rouge.

a little higher than in other types. The mouth should be made up quite full, with the curve accentuated by a tiny lift at the corner.

Additional length may be secured by the use of two tones of base. Use the darker tone on the outside of the forehead, temples and cheeks, and the lighter tone down the center of the face.

The Oblong.

Two things are sought for in correcting this type of face: roundness, and additional width across the brows.

Arrange the hair softly and loosely off the forehead so as to get full width. (Figure 6.) Waves brought close to the cheek will soften the jaw line. Excessive squareness of the jaw may also be softened by the use of a darker base. (Figure 8.)

Widen the upper lip and make the lower lip full at the corners.

The Oval.

Since the oval face is the favored type, obviously no correction needs to be practiced. It is essential, however, to introduce no discordant note into the make up of this type. (Figure 7.)

The hair dress should be simple, preferably with a central part. Keep the natural contour of the brows, beginning them, as described, above the tear ducts. Lips should be full and conform to the natural contours.

Colors in Corrective Make Up.

Nearly all our discussion so far has been in terms of black-and-white photography. The basic principles and procedures are the same in make up for color, but there is some difference in details and in the materials used. Briefly, make up for color differs in the following particulars:

1. Bases used are paler, with less red content. In the Anatole Robbins kit for color, the bases supplied are designated as Nos. 1, 2, 3 and 4.
2. Blue eye shadow is used instead of brown.
3. Cheek rouge is used. (None, of course, is used in black-and-white photography.)

Application of base, make up of eyes, lips, etc., follows the same formula as that described for black-and-white procedure. With the addition



Figure 7. Make up for oval face. Shaded area indicates position of rouge.

of cheek rouge, the general effect to be sought in a make up for color is that of a very careful and conservative street make up.

Cheek rouge plays an important part in corrective make up for color. The following points should be noted regarding the position and shape of the cheek rouge.

1. *For diamond-shaped face.* The rouge should be kept high on the cheek bone. (Figure 1.) Blend it carefully upward toward the eye and back to the hair line, but do *not* put any rouge on the lower part of the face.
2. *For the inverted triangular face.* Place rouge in a blended circle high on cheek bone, blending toward the center of the cheek and stopping on a line just above the upper lip. (Figure 2.) If the cheeks are full, lengthen the circle just a trifle, so that it shades the full section of the cheek on the outer edge.
3. *For triangular face.* The rouge is applied in a modified triangle shading upward to the temple, inward under the center of the eye, and *faintly* downward over the jaw line. Rouge covers only the *outer* portion of the cheeks. (Figure 3.)
4. *For round face.* The rouge is applied to outer portion of the cheek, running upward to the temple and shaded faintly downward over the jaw. (Figure 4.)
5. *For square face.* Blend rouge in a modified triangle to the high point of the cheek bone, back to the hair line, and faintly over to the outside of the lower jaw. (Figure 5.) This shading of rouge will modify the squareness of the jaw line.
6. *For oblong face.* The rouge is applied in a blended circle in the center of the cheek. (Figure 6.) This helps to create an impression of roundness. A faint touch of rouge on the chin will shorten the face if it is excessively long.
7. *For oval face.* Apply the rouge in a modified triangle, following the oval contour of the cheek and carrying the color very lightly up under the eye. (Figure 7.)



Figure 8. Shadowing to soften square jaw.



Figure 9. Reducing width of nose.

Note that, although the position of the rouge is *outlined* in the diagrams Figures 1 to 7, the rouge is, in practice, very carefully *blended* at the edges. Rouge should show no line of demarkation.

Special Problems.

In addition to the general problem of correction relating to the shape of the face, there are special problems growing out of the aberrations of particular features. The following instances will indicate the application of methods and principles, but it should be remembered that every case is an individual one and demands a bit of creative adaptability from the make up artist.

Noses.

A *short* nose may be given additional length by making it up with base one shade lighter than the rest of the face. Let the brows follow their natural contour, but darken them slightly toward the nose.

For a *broad* nose, make up the sides and around the nostrils with a base one shade darker. (Figure 9.) Highlight the top of the nose with base one shade lighter. (Figure 10.) (Note that the difference in shades is considerably exaggerated in Figures 9 and 10.)

For a *long* nose, use a base one shade lighter. Pluck the eyebrows back from the nose a little further than usual in order to gain compensating width. In making up for color, avoid bringing the cheek rouge too close to a long nose.

Figure 11 shows a more complex bit of engineering. Here is a nose that is not only unpleasantly broad and wide across the nostrils, but is further embellished with a hump on the bridge. As shown in Figure 11

the sides are shadowed with darker base. The hump is also darkened, while the areas immediately above and below it are built up with lighter base. Needless to say, this method of straightening the nose is effective only in a full-face portrait.

Chins.

A touch of lighter base will help correct a *receding* chin. As in the case described above, this correction is effective only in the full-face angle.

Use of a darker shade of base will help reduce a chin that is too *full*. Supernumerary chins also may be subordinated in the same manner. When working with color, as mentioned above, a touch of rouge will shorten a chin that is too long.

Eyes.

When eyes are *small* or deep set, the brows should be arched a little lower than usual. Apply mascara to the lashes on the tips only, and edge the lids lightly with an eyebrow pencil. Use eyeshadow sparingly and of a lighter shade than customary. Dark tends to make the eyes look even smaller and more deeply set.

Round eyes may be very appealing with their (often misleading) expression of innocent wonderment, but it is an effect that is easily over-done. To counteract excessive roundness, follow the natural brow line and apply mascara only from the center of the eye to the outer corner. In outlining the lids, start at the center and carry the line a bit beyond the outer corner of the eye.

Large eyes that are *prominent* will throw the face out of balance. Eyes in such cases must be made up sparingly and lightly. Concentrate the make up instead on the lower part of the face. Do not pluck the brows or pencil them too heavily. Nor should the lids be outlined. Be sparing of eye-

Figure 10. High lighting top of nose.



Figure 12. High lighting circle under eye.



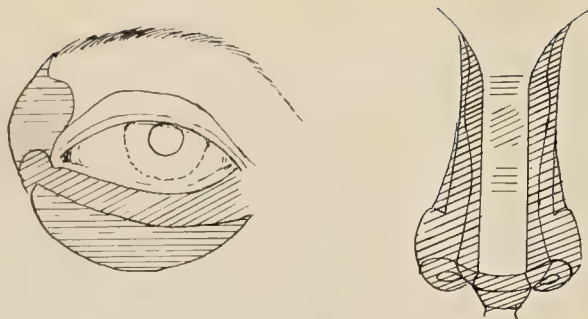


Figure 11.

Left: Correction of circles and puffs under the eye.

Right: Correction of nose for width and hump.

- MEDIUM OR BASE
 1 SHADE LIGHTER
 1 SHADE DARKER

shadow and apply mascara lightly to the upper lashes only. In making up for color, blend the rouge well up toward the eye: any conspicuous space between the eye and the rouge will accentuate the size of the eye.

Symptoms of age and the night before are prominently displayed about the eyes. In dealing with such tell-tale *circles* and *puffs*, apply base one shade lighter in the circle, (Figure 12) and in the puff, directly under the eye, apply base one shade darker. (See Figure 11,A.) Also highlight the inner corner of the orbit with the lighter base.

Mouths.

In considering corrective make up of the mouth, it is well to recall the general rules for the proportion of this feature:

1. The mouth, when smiling, should be about as long as the distance from the nose to the chin.
2. The vertical width of the upper lip, at its widest point, should approximately equal the vertical width of the lower lip at its widest point.
4. There should be a slight lift at the corners of the lips.

When lips are too *thin*, build up the contours by painting up to and over the lip line, keeping parallel to the natural contour. It is best to build up first and finish off with the painted outline. Drawing the outline first and then filling in gives a less natural appearing result.

With *thick* lips, blend the liquid base over the lips and blot them dry before applying the rouge. With the brush, fill in the lips and draw the edge a little bit inside the natural lip line. The accent of the dark rouge will conceal the fact that the lips are not made up to their full extent.

If the mouth is too *small* to properly balance the rest of the face, make it up to its fullest extent and also build it out slightly at the corners. Conversely, if a mouth is too *large*, make up should be concentrated at the center of the lips and cut short before the corners are reached.

If a mouth is disposed to *droop*, rouge on the upper lip should be



Figure 13. Lip hazard No. 1: The Sneer.



Figure 14.
Lip hazard No. 2: The Cheshire Cat.

squared off short of the corners. The lower lip, however, should be made up clear to the corners.

If it is desired to shorten the space between the upper lip and the nose, build up the mouth in the center. If, on the other hand, it is desired to widen this space, keep the upper lip low in the center and build it up on the sides.

Sometimes the upper lip curves suddenly into the mouth, giving an upper lip of insufficient width. In such a case, the brush should be used to extend the upper lip to meet the corners of the lower one. The reverse condition of a short lower lip tucked in at the corners is also met with. In the latter instance, the short lip is similarly extended to meet the corners of the upper lip.

The ideal to be sought in making up a mouth is that of finely structural *natural lips*. Therefore the amount of correction by deviation from the given contours should be as slight as possible. Never attempt, in portraiture at least, any sort of stylization. Remember that it is an honest-to-God face that you are making up, not a mask that you are decorating.

The photographer should be warned against two especially bad efforts at stylization of lip contours. They are both outdated glamour attempts, derived from the practice of certain glamour gals of yesteryear. For the particular faces for which they were devised, and for the particular artificial conditions under which they were used, they may have been logical. But, on the average face at least, they look merely vulgar and out of place.

The first of these labial desecrations we may call the Sneer. It is produced by drawing the upper lip very high and convex. (Figure 13.) As a matter of fact, no one has a lip so shaped —unless they have just had an



Figure 15. *A slight case of freckles.*



Figure 16. *Treatment for freckles.*

accident—but in the late twenties this contour was greatly esteemed for the too-too-utter air of sophistication that it was supposed to impart. It is seen no more on the screen, but it still crops up among the early adolescent lip-stick wielders.

The second misguided mal-adjustment of the lip may be called the Cheshire Cat. This is produced by exaggerating the concavity of the side contours of the upper lip. The result is a smug and pinched smirk. (See Figure 14.)

Freckles.

Freckles are a common facial blemish, and not infrequently a becoming one. But, becoming or not, portrait clients usually want something done about them. By correct choice of base, it is possible to disguise freckles without resorting to heavy application of make up. Figure 15 represents about as extreme a case of freckles as one is likely to encounter. Yet they are effectively concealed in Figure 16 without loss of skin quality. (Ortho film was used in both examples.)

The trick, in the case of freckles, is to choose a base intermediate in tone between the skin and the freckles. Thus the skin is darkened slightly, the freckles are lightened slightly, and in the general confusion the freckles disappear.

(Lest there be any misunderstanding, let me emphasize that this sort of treatment is not generally recommended for a child's portrait. Figure 15, freckles and all, is undoubtedly a much more beguiling version of the subject. These pictures merely represent a laboratory demonstration of an extreme instance, undertaken because of the irresistible challenge to the talents of the make up man.)

A Report On The Emmermann Process

C. E. Potter

IN the average group of negatives, some are usually found that for whatever reason are so contrasty that even the softest papers will not accommodate them. It often happens that these are the hoped-for masterpieces, and, to make matters worse, the distribution of densities is frequently such as to make projection control or the use of dye impractical if not actually impossible. Bleaching and redeveloping can be of assistance, but because of a certain amount of risk involved there is a natural hesitancy to take chances with a "one and only" if any possibility exists to improve matters by safer means.

Now suppose it were possible to print the shadows of such negatives on any compatible paper and then print the highlights separately in such a manner that this second exposure would have little or no effect on the previously exposed areas. This would produce normally graded extremes, but extremes considerably less separated than heretofore with the result that the print would appear very much more of a unit.

This, in effect, is what the Emmermann Process accomplishes. Since the results are not the same as those obtained by the use of very soft papers and because the density range of paper is limited, it follows that some portion of the scale will be compressed. Whether this constitutes a drawback will naturally depend upon the subject or negative and judgment must be applied to each individual case, but it must be remembered that such judgment is usually passed by the eye and not a reflection densitometer. In other words, a technically inadequate print from the standpoint of a laboratory, might still be quite pleasing to look at.

Briefly, the procedure is as follows: The paper is first soaked for a

couple of minutes in developer (I used D-72, 4:1), placed on the easel and an exposure of sufficient length given to print the shadows to the desired depth. Now, instead of transferring the paper to the tray, it is allowed to develop on the easel undisturbed (which practice I do not recommend). Upon completion of development, a second exposure is given which will print the highlights, after which the paper is placed in the tray for development of this second exposure and then rinsed and fixed in the usual way.

From this short description, it is evident that the developed image resulting from the first exposure acts as a mask for the second and that the efficacy of this mask is proportional to its depth. Thus the shadow areas, being heavily masked, will not be affected by the second exposure whereas the highlights may be printed at will. By merely varying the length and ratio of these exposures and the grade of paper used, it is immediately apparent that opportunity exists for considerable control.

As outlined above, however, the process works better in theory than in practice. When a piece of developer-soaked paper is exposed to the air for any appreciable time, stains are practically inevitable regardless of the type of developer employed. Furthermore, stagnant development is not only conducive to streaks and uneven density, but subnormal density and contrast as well. Consequently, a print processed in this manner (according to the usual instructions) will have shadows that are flat and lifeless, to say nothing of a wide assortment of streaks, blobs and stains.

Now the only reason for developing on the easel is to insure accurate registration of the two exposures, but, unfortunately, even this happy state of affairs is not always realized. During this first development period a slight shrinkage frequently occurs which naturally results in a double image, therefore it was decided to modify this step. Accordingly, then, instead of allowing the paper to remain on the easel after the first exposure, it should be transferred immediately to the tray. Upon completion of development, it is then replaced on the easel, registered under a suitable filter, exposed a second time and the remainder of the processing carried out in the usual manner. Obviously, the paper is still exposed to the air, but with a little practice, registration can be accomplished in a matter of seconds with the result that chances for staining are materially reduced. Since dry paper refuses to lie flat, the presoaking step should be adhered to.

Such is the general outline of the process, but, like many others, it, too, is full of surprises. During the initial experiments it was found that certain papers exhibited a rather strong tendency to reverse in the shadows, among these being Brovira, Velour Black and Varigam. On the other hand, Cykora, Kodabromide and Vitava Projection gave no trouble of any kind. Now all work had been done on matte and semi-matte papers, but in an article such as this it is usually well to include illustrations of whatever anomalous behavior might be encountered, which, of course, calls for glossies. Accordingly, a few 8x10s were made to show why certain papers should be avoided, but to my complete amazement, none of these "unsuitable" papers showed any signs of reversal regardless of exposure time, negative used or the type of developer employed. It seemed a bit strange that a paper's surface should have any bearing on the situation, but just to be sure, more prints were made on the original surfaces. And the results



Figure 1.

Figure 2.

Figure 3.

Figure 1 shows a straight print on Kodabromide F1. Figure 2 is a straight print from the same negative on Kodabromide F3. Figure 3 was also printed on Kodabromide F3, but was made by the Emmermann Process. Observe that the contrast has been greatly reduced and that full shadow detail has been retained. In the case of a more contrasty negative a print on the softest paper might easily resemble Figure 2. It would then be impossible to obtain a passable print by using a softer paper, but the Emmermann Process would still give a degree of improvement comparable to that shown in Figures 2 and 3.

were identical to those obtained with the glossies! Now they reverse—now they don't! And ever since then, these same papers have yielded consistently normal prints—in fact I have been unable to *make* them reverse. What the answer is, I don't know—but the moral is—not to discard a paper before giving it a thorough trial.

From the standpoint of contrast, a good print depends upon the use of fairly hard papers which eliminates many of the 1-contrast type such as Kodalure, Opal and Veltura. For example, if a negative prints fairly hard on any of these by conventional methods, a paper such as Brovira Medium or Kodabromide #3 should be about right for the Emmermann Process. However, the use of too hard a paper will result in *reduced* contrast in both shadows and middle-tones.

Because each negative is different, it is practically impossible to cite a foolproof rule that will cover all cases, but it is safe to say that a print made by this process will always be softer than its more conventional brother—provided, of course, that the same paper is used in both instances. Upon a moment's reflection, the reason for this is quite apparent. We know that the developed image from the first exposure acts as a mask for the second and that the efficiency of this mask is proportional to its density. Consider, then, two adjacent areas on a print whose densities are, say, 1.0 and 0.9 which we might call "first exposure" or "mask" densities. Now if these two areas are given an identical second exposure, that area whose density is 1.0 will resist or mask this second exposure to a greater degree than will its neighbor, or the second exposure will have added less density to this area than the other. Obviously, contrast between the two will have been decreased. Consequently, in order to compensate for this change it is necessary that a harder paper be used, which, in practice, usually amounts to 2 grades.

An example of this relationship is shown in the illustrations. Fig. 1

was made on Kodabromide F1 from a negative including a range of densities from approximately 0.3 to 1.9. From the standpoint of gross contrast, the print is fairly satisfactory in that it shows a reasonable amount of shadow detail and clean highlights. Naturally, a decision as to the merits of a print is pretty much a matter of personal taste, but it would seem to me that in this particular instance the contrast in the highlight areas, e.g., between the statue's head and sky, is somewhat low. Little can be done with this combination of negative and paper to rectify this defect since a longer exposure calculated to increase contrast in these lighter areas would not only blacken the shadows, but might gray the extreme highlights as well. Nor would the use of a harder paper such as #3 prove beneficial as can be seen at a glance from Fig. 2.

Now refer to Fig. 3 which was made by the Emmermann Process on the same paper (F3) as Fig. 2. Compared with Fig. 1, you will note that while the two prints contain approximately the same amount of shadow detail, highlight contrast in Fig. 3 is definitely greater. In this particular instance, the first and second exposures were 10 and 15 seconds, respectively.

Determining these exposures can best be done by the time-honored test-strip method. As a rough guide, and remembering that the second exposure will lower contrast in the shadows to a certain extent, the criterion for a correct first exposure is an absence of tone in the highlights with strong detail in the shadows which should have a trifle less density than desired in the finished print. Once this value has been obtained, the second exposure will usually be found to run anywhere from the same to 100% greater than the first.

As you can imagine, it requires but a very few prints to make a sorry looking mess of the easel, therefore I would suggest that operations be conducted in a tray. This should be black and somewhat larger than the print so as to avoid trouble with reflections from the sides and fogging through the back of the paper. For an 8x10 print, an 11x14 tray of black hard rubber should prove quite satisfactory.

At this point it may be of interest to note the resemblance between this process and the phenomena involved in printing on P.O.P. However unpleasant its color and lack of speed, it cannot be denied that for a given amount of highlight detail its shadow rendition is unusually good. With this type of paper, the rate or ease with which density may increase at any point is inversely proportional to the density already extant at that point—which is merely another way of saying that an image on P.O.P. acts as a mask against further exposure, the effectiveness of which is proportional to the density of that image. Thus, the shadows are automatically held back while the highlights are being exposed. Aside from obvious differences, it might be said, then, that the results obtained by the Emmermann Process on P.O.P. in 2 steps are similar to those to be had on P.O.P. in 1.

Whether a print from a hard negative made by this process is superior to a straight print from a "normal" negative is a moot question. As was mentioned in a previous article, heavy contrasty negatives are not to be preferred for projection printing, but when one is at hand and it becomes imperative to obtain the best possible print from it, the Emmermann Process is both practical and useful and certainly deserves a place in the photographer's repertoire.

Optically Speaking

William K. Saunders

CHOICE and use of a lens is undoubtedly one of the most important phases of good photography, yet but few men seem aware of the simple rules that govern the use of this vital tool. Nearly every camera fan has a great many firmly fixed ideas about the relative value of the different makes, and a strong desire to have the newest and latest sumptuous $F1.1$ that sits on the shelf at the local emporium. If a photographer is really interested in making fine pictures it is best for him to try to accept the fact that reasonably good equipment is adequate and try to master the important features about a lens, i.e., the significance of its focal length and covering power.

The covering power of a lens is simply defined as the size of an image sharply formed by the lens and focused for infinity. When we say that a $5\frac{1}{4}$ inch Tessar lens covers a 4×5 plate, we mean that this lens forms an image 4 by 5 inches in dimension which is sharp. As lenses are ground with circular elements the actual area covered is, of course, a circle, the area of the plate lying inside. This fact gives a clue to a more definite method of stating the area covered. By geometry, if the circular image formed by a lens has a given diameter, then the lens will cover any plate, the diagonal of which is less than the diameter of the given circle. Thus, a lens with a circle of coverage of diameter 5 inches will cover a rectangle 3 by 4 inches. Some manufacturers state this coverage in terms of an angle of so many degrees, the angle mentioned being the angle subtended at the lens by the ends of the diagonal of the circle of coverage. This is also the same angle as that formed by the two uttermost objects in the picture. The magnitude of the angle of coverage is determined largely by the formula of the lens itself, but is also connected with the stop employed. Practically all lenses have increased covering power as they are stopped down, but the type of image formation varies greatly from make to make. Lenses of the Dagor type tend to increase in covering power almost indefinitely as the diaphragm is closed. The Schneider Symmar, for example, at $f64$ covers a plate of diagonal twice the focal length of the lens. (90 degrees or a $6\frac{1}{2}$ inch covers an 8×10 plate.) Lenses built on the Tessar formulas do not show much of an increase. Some sharpness, it is true, being gained at the outer edge of the negative, but relatively little increase in the size of useful image, as no illumination at all is secured beyond a certain point. Incidentally, before we leave the subject of lens coverage it might be well to mention that the coverage power of anastigmats in general use is usually figured for the largest stop; while in the case of the wide angle lenses the coverage given is for the smallest stop, as it is this latter opening which is usually of interest in architectural photography.

While the covering power of a lens at a given opening is a constant

factor, apparent changes may occur due to the use of movements or focus points other than infinity. If the position of a lens is raised in a rising front mechanism, a larger field of coverage is thereby required, as the center of the image is moved above the center of the film. Also, it is apparent that tilting lenseboards tend to displace the center of the image with respect to the center of the film. The latter case, that of lens being focused on objects not at infinity, has a beneficial effect. Here the angle subtended at the lens by the plate is being decreased so a lens that covers 4x5 at infinity will probably cover 8x10 where a 1 to 1 copy is being made. This effect is noticed in the selection of a lens for an enlarger, most 6-inch lenses handily covering 5x7 negatives. An extreme example is found in insect photography where men use Leica lenses on their 5x7 and 8x10 cameras.

From this discussion of covering power we come to the more involved consideration of the effect of the focal length. Here we must, of course, assume that the covering power of the lens is adequate to form a sharp image over the full size of the plate. It also clarifies things if the reader assumes that when we speak of a 5x7 plate we mean a full 5x7 image and not a 4x5 image surrounded by some extra film. The latter, of course, comes logically under the classification of a 4x5 plate.

Every lens, of course, has a focal length, in most cases clearly marked on the mount. This is the absolute focal length and contains no reference to the size of plate used. Most often, however, one is interested in the relative focal length of the lens compared with the size of the plate. All considerations pertaining to emphasis or perspective are mainly concerned with this latter ratio. In practice, a relatively normal focal length is about equal to the diagonal of the plate. A 5 inch on a 3x4 or a 12 or 13 inch on an 8x10. A comprehensive rule would class lenses 80 per cent or less of the diagonal as short focal or wide angle, 80 to 120 per cent as normal lengths, and anything greater than that as a long focal length. An easier rule in much practical use classes all lenses of focal length less than the longest dimension of the plate as wide angle; those less than the sum of the dimensions as normal, and the others as long focals. In the case of an 8x10, an 8 $\frac{1}{4}$ would class as short, 12 to 14 as normal and about 20 as a long focal.

Perspective of a picture depends primarily on the distance between the subject and the lens, and theoretically is independent of the type or focal length of the lens used. Anyone who has done any drawing knows the vanishing point and horizon, etc., depend wholly upon the point of observation. In addition, a perspective obtained from any viewing point is actually correct. It is merely that the eye normally sees the face, for example, from a minimum distance of say 5 feet, and any picture representing the planes as seen from some shorter distance seems strained and unnatural. If the only consideration is the distance between the observer or camera, and the subject, why does the idea of lens focal length enter the topic? Theoretically it doesn't. If one takes a portrait first with a long focal length and then with a short, maintaining the same camera position, and then enlarges the smaller image obtained with the shorter length to the same size as the image obtained with the longer length, they will be identical. Practically, however, this offers several difficulties: The smaller



'Veils of Green'

H. De Wetter, Brooklyn, N. Y.

28th Annual Pittsburgh Salon

image will be harder to retouch and such considerations as loss of definition, spots and grain will become more important. In addition, this latter method violates the assumption that we fill out the plate, for what we are really doing is taking a small negative with a lot of waste film surrounding it, and related to this small negative the focal length of our second lens is great. The result being that in both cases we are really using a relatively long focal length, in fact, equally long relative focal lengths.

Apart from any consideration of perspective there is the question of emphasis or psychology. Psychology demands that we take certain pictures from certain distances. A case in point is in portraiture where the sitter will feel much more relaxed if the camera is not virtually on top of him. Emphasis also has much to do with the selection of the focal length to be used. A court photographed through an arch will look much longer if the

camera is placed close to the arch and a short focal length used, than if a long length is put on the camera and the camera moved back until the arch comes into the picture. This is a direct result of the emphasis of near objects by the wide angle lens, a trick widely used by the pros but rather ignored by amateurs. The print opposite by Alex Piaget accurately demonstrates the value of the short focal length in this capacity, as the distance from the figures to the building was actually a matter of only a few yards. With a long focal length the facade would loom up the full size of the print, completely destroying the effect desired.

To help in choosing the correct lens for a given subject, a knowledge of the simple laws of image formation is important. The two basic laws of image formation are:

1. The size of the image is related to the size of the object as the distance from the lens to the image is related to the distance from the lens to the object.

Thus if an object is 30 inches from the lens and the film is in focus 3 inches from the lens, the image will be one-tenth the size of the object. If, of course, the two distances are equal, then the scale of reproduction will be 1 to 1, or the image will be the same size as the object.

$$2. \frac{1}{Do} + \frac{1}{Di} = \frac{1}{f} \text{ where } f \text{ is the focal length of the lens.}$$

Thus if we were using an unmarked lens in the example just cited, we could find its focal length from the following: $\frac{1}{3''} + \frac{1}{30''} = \frac{1}{f}$ or multiplying both sides by $30'' \times f$:

$$10f + 3f = 30 \text{ inches, } 13f = 30 \text{ inches, } f = \frac{30}{13} = 2.4/13''$$

It is this formula that allows us to focus the lens on some distant object and say that the distance between the lens and the image is the focal length of the lens as

$$\frac{1}{\text{Infinity}} + \frac{1}{Di} = \frac{1}{f}$$

$$\text{As } \frac{1}{\text{Infinity}} = 0 \quad \frac{1}{Di} = \frac{1}{f} \quad \text{or } Di = f$$

In most cases, however, we need a combination of the two formulas to get the results we desire. For example, in portraiture it is generally assumed that it is unwise for the camera to be closer than five feet to the subject. If we are using a 5x7 camera to take big heads, what focal length would be required? Let us assume that the actual image of the head on the plate is to be $3\frac{1}{2}$ inches from chin to hair, and that in the average individual this measurement is actually 10 inches. Then we have $Do = 5'$ or 60 inches. $Si = 3\frac{1}{2}$ inches. $So = 10$ inches with f and Di unknown. Thus, by equation 1:

$$\frac{Di}{Do} = \frac{Si}{So} \quad \text{or} \quad \frac{Di}{60''} = \frac{3\frac{1}{2}''}{10''} \quad D = 21''$$



Alex Piaget

Using equation 2:

$$\frac{1}{D_i} + \frac{1}{D_o} = \frac{1}{F} \quad \text{or} \quad \frac{1}{21} + \frac{1}{60} = \frac{1}{F}$$

$$21F + 60F = 1260 \quad \text{or} \quad F = 15\frac{3}{4}''$$

Thus a sixteen inch lens is about the shortest practical length for 5x7 portraiture if one is interested in big heads.

I will give one or two more examples that come up, not merely as problems in algebra but as form examples to save the reader time in solving some of the usual problems:

How long should the bed of a horizontal enlarger be if we wish to enlarge six diameters, and are going to use a 4 inch lens? Here we have:

$$S_i = 6x \quad S_o = x \quad D_i = \text{unknown} \quad D_o = ? \quad \text{and } F = 4''$$

By equation 1:

$$\frac{D_i}{D_o} = \frac{6x}{x} = 6 \quad \text{Or} \quad D_i = 6D_o$$

By equation 2:

$$\frac{1}{6D_o} + \frac{1}{D_o} = \frac{1}{4} \quad 4 + 24 = 6D_o$$

$$28 = 6D_o$$

$$6\frac{1}{3}'' = D_o \quad \text{or} \quad D_i = 38''$$

necessary from the lens to the easel or 44 $\frac{1}{3}$ '' from the negative carrier to the easel.

As a last example, assume that we want to know how long a studio we shall need if we wish to take full length figures with a 4x5 camera, using a 6 inch lens. Let us assume that we wish to have 4 feet behind our figure to light our background and at least 2 feet behind the ground glass of the camera in order to see what we are doing. Assuming that we wish to fill 4 inches of our negative with a six foot man, we have:

$$F = 6'' \quad Si = 4'' \quad So = 72'' \quad Di = ? \quad Do = ?$$

By #1:

$$\frac{Di}{Do} = \frac{4}{72} = \frac{1}{18}$$

$$18Di = Do$$

By #2:

$$\frac{1}{Di} + \frac{1}{18Di} = \frac{1}{6}$$

$$18 + 1 = 3Di$$

$$19$$

$$\frac{19}{3} = Di$$

$$6\frac{1}{3} = Di$$

As $18Di = Do$

$$Do = 18 \times 6\frac{1}{3} = 144'' \quad \text{or } 9\frac{1}{2}'$$

In all then we will need 4' plus $9\frac{1}{2}'$ plus $6\frac{1}{3}''$ ($\frac{1}{2}'$ approx.) plus 2' or a total of 16'.

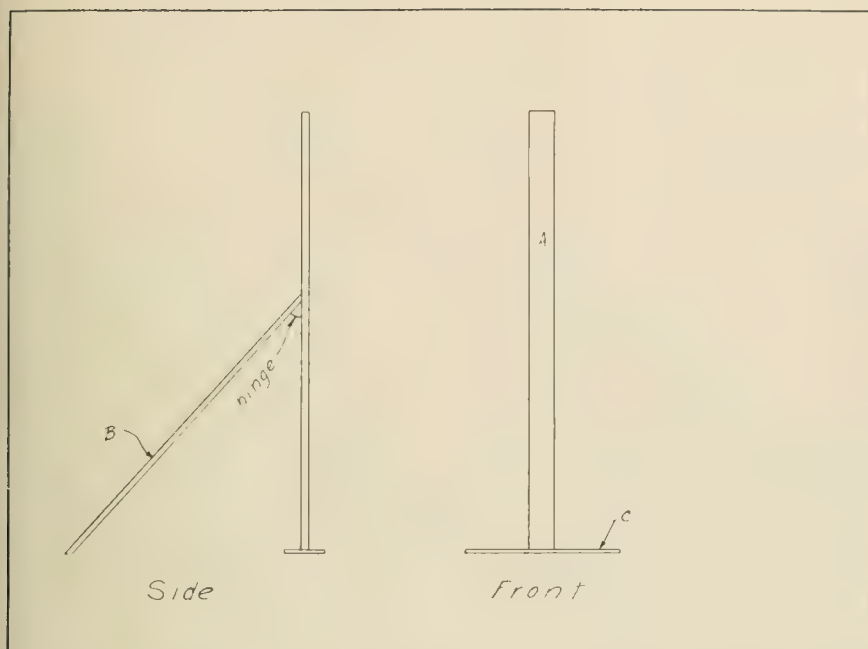
As you see, all problems pertaining to focal length and scale or reproduction can be solved by these two formulas, usually used in conjunction. In a few cases one runs into square root, but in the majority of examples all that is necessary is to multiply through by the common denomination and be careful to do the calculations either all in inches or all in feet.

Backgrounds For Color Photography

Henry Weller, Jr.

THE three big problems peculiar to all backgrounds used by the amateur whether for black and white or color are: adaptability and ease with which they are set up for use, storage when not in use, and ease of transportation when making home portraits. We have gone to grips with these problems and present herewith our solution.

For those occasions when your sitter can be persuaded to pose in the attic studio, provided an attic is available, a piece of wall-board, purchased from the local lumber company, four by seven feet in size will serve. Paint one side a medium brown and cover the other with a white sheet. Since both sides are to be used, the wall-board is supported by leaning it against



the support shown in the accompanying diagram. Of course, the background leans backward slightly but this is of no account. A tall upright, A, is supported by member B which is attached to A by means of a hinge.

On the bottom of A is nailed a fairly wide piece of thin wood to prevent the upright from falling over sidewise. This background works satisfactorily in the attic, but after assembling it and noting that it is impossible to carry it around for home portraits, you will realize what an incongruous thing you have made. And when you start to make color portraits, in which a number of colored grounds are needed, a stock of variously colored well-boards just will not do. Hence the following idea.

We decided to stock up on a variety of inexpensive, brightly colored cloths and to store them in a manner to be dealt with below. We shopped around but finally obtained two really inexpensive materials from a large mail order house. One, a sateen and the other a cotton of 160 threads per inch, both costing only eleven cents a yard. The width of 36 inches was ample for portraits. We chose a variety of brilliant, plain colors obtaining two yards of each. The reason for the *brilliant* shades of red, green, apricot and lavender will be dealt with under suggestions for lighting effects.

From a local dry goods store, we obtained the tubular cardboard rollers on which their yard goods is wound. Then using one roll for each color, after previously ironing out all creases and wrinkles, we attached one end of the cloth to the roll. This may be done by tying the cloth on. Run a string through a small hole near the end of the cloth, then tie around the tube. Three such strings hold the cloth satisfactorily. By this means the backgrounds are easily stored: simply by rolling up. As to their use, that is a simple also: when working with the wall-board the roll of goods is placed on the floor and the loose end pulled up and attached with thumb-

tacks or push pins to the board. When working in friends' homes, the loose end of the cloth is either tacked to the mantel or held in place by hooks. It may also be tacked to a molding on the wall. The roll always being on the floor, since by rolling up the superfluous cloth tightly on the roll, the background is kept free of wrinkles and creases.

Besides being easily stored, these backgrounds are easily transported about, and no additional stands or accessories are required. Beside the variety of colored cloths, we have attached to one roller, a light cream, a medium brown, and a black cloth for black and white portraits.

For photographs in color, the lighting of the background is of utmost importance, and a variety of interesting effects are possible, a few of which are suggested here.

If the sitter is placed well in front of the background, four to five feet, and a general, broad or flat frontal lighting employed, but no light is used on the background, the background color will reproduce darker in tone than it appears to the eye. While an exposure meter is not too reliable here, as different colors have different reflections by virtue of their hue, it can generally be stated that a reading of $1/5$ to $1/10$ that of the face area will reproduce a background color darker than it appears to the eye. The exposure, of course, being based on the reading of the flesh tones of the face. It is wise never to have a background reading of less than $1/10$ that of the face area as then the background color takes on a bluish tinge which is a sign of underexposure.

By using one photoflood in a circular reflector directly behind the sitter but on the floor and directed upwards at the background, a rather pleasing effect is obtained. The sitter appears surrounded by an area of tone, light in shade and which gradually darkens toward the edges of the print.

For an extreme of the foregoing but an exceedingly pleasing effect, direct a spotlight on the background from the same position as the flood. By adjusting the size of the spot, the dark area surrounding the sitter may be readily controlled in size. Its tone may be controlled by using two photofloods directed from the sides. In this and the foregoing a number of shades may be produced by using interchangeably number one and number two photoflood lamps.

For an even tone use two floods on both sides and somewhat in back of the sitter but at about the level of the head. Here again the tone can readily be controlled by means of the two sizes of lamps. In this way only brilliantly colored cloths need be stocked as the lighter shades can be produced by using more light. From even our brilliant red color we obtain a pastel pink by using three number two lamps as close as possible. In this case the Weston reading is even higher than the face reading. By using a great amount of light on a color, the effect is that of diluting the color with white, thus giving a lighter shade. You perhaps have unwittingly done this already in your early attempts when you concentrated light on the face of your subject and reproduced the flesh as pasty and washed out. Using our apricot cloth which is just slightly darker than flesh tone, we have obtained shades ranging from light cream to a medium tan on the Kodachrome! Merely by varying the background illumination with respect to the frontal illumination.

Cinema Section

Edited by

William A. Palmer

Lining Up Eight Millimeter Titles

R. S. McCollister

SO the carefully made, painstakingly aligned title is a dud! There it is all Skewgee, over to the left, and low, And—you had tried so —— hard to get it straight. Let's see what can be done to help this situation.

First, what kind of titler was used? Oh, a home-made one. Yes, I know, it's the best one this side of New York. Quite right, but how was it aligned? With a T-square, spirit level, surveyor's transit and the Lick telescope—or if you had used all of these it could be no better!

All right, calm down my hearty, and let's get to work and get this really aligned. First, we need some materials. Here's the list:

- 1 titler—already in place.
- 1 camera—also in place.
- 1 set of lights—in place to boot.
- 1 roll of film what film? Why Gevaert positive, double perforated and scored for eight millimeter work, of course. A lot cheaper than Kodachrome, and excellent for testing purposes, since, to split it for projection, all that is necessary is to crease the film down its length and it splits.
- 1 Ruby light, to use in loading and developing film.
- 2 soup bowls Pardon me, I didn't know you had a complete darkroom. Well, soup bowls do if the darkroom is not present.
- 1 MQ tube.
- 1 small amount of hypo.
- 1 drawing pen—fountain pen will do.
- 1 bottle India Ink for drawing pen—forget it if you use fountain pen.
- 1 sheet of very white paper, large enough to cover easel of titler.
- 1 Ruler.
- 6 thumb tacks.
- 1 kitchen with sink—if dark room is not available.
- 1 pair of scissors—to cut the film with,
- and last, but by no means least:
- 1 Projector, preferably the one to be used most with the titles to be made.

Now, to work. First lay out the sheet of white paper, and draw thereon a grid of vertical and horizontal sharp black lines—not too thin—each one-quarter of an inch apart. If the title easel is smaller than $7\frac{1}{2}$ by 10 inches, separate the lines by an eighth of an inch. Mark the center intersection, and the middle vertical and horizontal lines. Make them heavier, or double, so that they will be noticeable in a photograph.

Next, fasten this down onto the title easel with four of the thumbtacks, so that—as best you can—it is straight both vertically and horizontally, and the center intersection will come as close as possible to the center of the frame.

Then load the camera with the Gevaert film. This may be done in ruby or deep red light—not yellow, or it will fog. Set the camera on the titler, light the lights, use Weston three to determine the exposure, focus carefully, and shoot one foot of film. It will not be necessary to use a take up spool. Run off two more inches of film, for a handle, cut the film that is exposed out of the camera, again in the ruby light, put it in the can it came in and bury in your pockets.

Now, prepare the MQ tube as per instructions thereon. A soup bowl just about takes the solution from one MQ tube, and is most handy. Also prepare the hypo. Arrange on the kitchen sink, or in the darkroom if you have one. darken the room, and dunk the length of film in the developer.

Leave it there for about 5 minutes. Take out of the MQ, wash in running water for a few seconds, and then drop into the hypo. It helps to agitate it in both the developer and the hypo, but that is not absolutely necessary. Leave in the hypo, still in the dark or in ruby light, for about one minute, then turn on the white light.

You now have taken a picture, on 8mm film, of the grid you drew on the paper. The development has given you a negative—that is, the black lines are now white against a black field.

After five minutes, remove the film from the hypo, wash in running water for ten minutes, pull the film through a squeezed out Dupont sponge or a towel, to remove excess water, and hang the strip up to the mantel—or some other convenient place—to dry. This should take place in not more than half an hour in the usual apartment house. A little hot air from the radiator or a fan with a heater in it will speed things up.

When the film is dry, split it with the fingers. Then splice it into a loop so that it may be fed into the projector to run around and around and around—and so on.

Well, we are now ready to actually line up this title stand. Feed the projector the film, so that it goes through properly, but goes continuously, since it is a loop. Project the film onto the screen, focussing sharply and carefully on the edges of the picture—never mind the center now. Then carefully examine the screen while this picture is being projected. It, of course, will be the grid you made on the paper, now in negative form.

Count off on the screen the number of lines from the marked center lines to the edge of the screen. This should be done up and down, to the right and to the left.

Now mark off on the paper attached to the title board the distances counted out on the screen. Connect these four points into a rectangle, and—this is the milk of the coconut—this is the actual area of the title board that should be used in titling.

This method will also indicate whether or not the titler is square, since it will be at once apparent if the grid is tipped to one side.

The reason for all this to do is that the 8mm projectors do not show all the frame recorded on the film. The projector aperture is smaller in all cases than the camera aperture. In addition, not all projectors show the same section of the individual film. Therefore, the title board and all that goes with it must be aligned with the projector in which the films will be shown.

Now, having found the actual area used in titling, it is a simple matter to make a mask of cardboard, with the center cut out into exactly the size and shape of this area. This mask may then be held in position, and if marks or pins are provided so that the mask may be replaced in the same position each and every time, it will faithfully indicate the true titling area for all time.

If this is done, then anything placed in the area within the mask when the camera is in place will be faithfully recorded onto the screen. If the material is straight and centered in the mask area, it will be straight and centered on the screen.

Now don't lose or damage that mask, it's valuable.

The Documentary Film

What Is It and What Can the Amateur Do About It?

There is a good deal of reference these days to documentary films and their makers but the term "Documentary Film" seems to be pretty generally a mystery to as the average man in the street is concerned. He is apt to hold the impression that a documentary film is one which treats of weighty social problems and must have a certain crusading spirit with accompaniment of awe inspiring music and somber music.

It is true that the best known and certainly the best publicized documentary films have been dramatic social documents made most often for propaganda purposes, but this is not a definition of that type of film. A documentary film is merely one which documents actual happenings, situations, and people in their everyday life. The form of the film is not limited and any topic can be treated. It must be about real things, people, and places. Notice that we say *about* real things. It is not a necessity that the film be completely devoid of staged scenes or impersonated characters. The essential point is that the story elements must be based on reality as contrasted to fiction.

By the above definition, the typical industrial or advertising film would be regarded as a documentary as indeed it is. (Except for an occasional burst of advertising propaganda which is pretty much on the fictional side.) However, more important than anything else, the term "documentary film" has been almost exclusively applied to those films of industrial, educational, or publicity nature which makes use of a narrative form. Since the vast majority of the industrial films are straight expositions, or more properly what we might call illustrated

lectures, it is very easy to consider them as a class outside of the documentary

This brings to attention the two great divisions or attitudes in which documentary films can be made. The first is the creation and maintenance of an illusion of realism. That is, the film technique is such that each member of the audience is made to feel that he is a witness to the actual happenings, as if he had just happened along and seen the subject matter first hand. This, of course, is exactly the same type of illusion that all good photoplays create, but these are dealing for the most part in pure fiction.

The second type or attitude is that illustrated by the majority of industrial and educational films. In this, the members of the audience never forget that they are watching a picture but are given the impression that the various subjects are brought in to the theater and displayed. This last is scarcely motion picture technique, for it is little more than the old fashioned magic lantern show peppered up with motion. When sound track is added it becomes an illustrated lecture.

Of the two types, the first or realistic technique with carefully planned continuity is by far the most forceful but at the same time vastly more difficult to produce. The illustrated lecture type on the other hand, requiring little motion picture technique, is relatively easy to produce. Naturally the most easily produced is the one which is produced in quantity and we do not usually think of them as documentaries.

The realistic type of documentary is best illustrated by such films as *How the Plow that Broke the Plains*, *The River*, *Man of Aran*, *Night Mail*, *The City* and others which have received wide acclaim. They all present a dramatic story and give the spectator a chance to look into the facts of certain situations and see them as they are in the flesh. They also illustrate very definitely that, while they are made for a purpose of propaganda or publicity (the term propaganda is not meant in the unpleasant European sense implying deception), they can be decidedly entertaining as well.

Here is the challenge to the advanced amateur film maker. Here is a field in which he can exercise his talents without the handicap of inadequate facilities. Naturally the amateur cannot compete with Hollywood in the fictional photoplay field when he cannot have the settings, actors and technical equipment at his command. But the best documentary film does not demand more than a camera, film, intelligence, and work. It portrays things and people as they are and with the proper skill and patience the amateur can put it on the screen as well as anyone. Fancy technical equipment and facilities to stage things are a help but the worker without these can use ingenuity to make up the lack.

How can the amateur go about making a documentary film? The first step should be to see as many of those already produced as possible. Those mentioned above are being shown frequently in all parts of the country and if one keeps a lookout for press announcements of the showings, he can pick them up. The easiest way one can see documentary films is to attend the local theaters where *The March of Time* is being shown. Of course, these are usually highly dramatic subjects made possible by certain facilities beyond the reach of the amateur and they deal with international subjects, the material for which must be gathered by a large and widespread staff. The methods of presentation and camera technique, however, are worth very careful study. The subject matter for the amateur is close at hand in his home town. It may be some phase of the city government, traffic control, Community Chest, Service Club work, the local Red Cross chapter, the Public School System—all offer unlimited opportunity for film documents.



A Psychiatrist Looks At Photography

Tom H. Cheavens, M. D.

The Author

THERE are many popular expressions to the effect that all photographers are crazy; in the medical profession there are numerous stale quips to the same effect regarding psychiatrists in general. The psychiatrist who is also a photographer according to these traditions should certainly be wearing a Napoleon hat, instead of carrying an ophthalmoscope in one pocket and a lens shade in the other. Such a combination of vocation and avocation might enable one to see in two directions, so to speak, and it is not defensively that I present here certain observations on the hobby, art, craft, indoor and outdoor sport, or obsession, as you will, known as photography.

There must be some interesting and fundamental reasons why photography compels and holds the interest of so many people. Following the tradition of American Psychiatry, we should not try to simplify the matter too much. A matter so universal cannot be reduced to a sentence formula, such as one hears: "It's the creative instinct" or some such ready-made formula.

As a matter of fact, the professional man sees in photography the exercise of many qualities which are essentially and fundamentally human. Wolfgang Kohlers' apes knew how to get an out-of-reach banana into the cage by the use of a convenient stick, but even a simple box Brownie would merely be something to throw or stand on to these apes. So we may say first of all that a camera with its intricate, precise, ingenious mechanism; film; tanks; enlargers and chemicals appeals to human beings because only human beings could have the intelligence and ingenuity to devise such a hard way to make pictures. It is quite a step from a stone tablet and a chisel. It is even thought by some to be a bit ahead of the red juice of a berry, a chewed stick and some birch bark. So much for the intellectual appeal of photography. Who can resist being charmed by the shiny complexity of photographic equipment? But how about the emotional appeal?

Here we run into such a complex array of factors that only a hasty survey is possible. We mentioned a creative instinct; man likes to reproduce. Look at all the little John Does running around the neighborhood

and you both see and hear evidence of the fact that humans have an increasing urge to turn off chips from the old block. One is tempted to comment that the more they look like John Doe, the prouder everybody is including all the aunts and uncles. Photography does this better than any man-made device yet known. The "spittin' image" is still an ideal both in pictures and offspring.

But man goes farther. He seems to enjoy changing the "spittin' image" just enough to leave no doubt that it is a 1941 model; definitely not 1940. And so we keep making pictures and who doubts that pictures are getting better constantly. So the old wagon wheel, babies, dogs and door hinges are still good, provided, of course, that you make them always better.

Man often goes even more deeply into things. Every now and then he turns out something which to his astonishment, is not only better, but entirely different; no one ever saw anything like it before. Then he is a genius and has a "following;" some don't like it at all and become very bitter about it; they usually have had no such luck.

Not only does photography give unlimited room for man's drive to create and reproduce; there is an acquisitive turn in the human race. From the stone age, or before, man has been collecting things; arrow heads, jugs, weapons, bright things like coins. When they slow him down he invents trailers and things to carry them in. Look at the gadgets around any amateur photographer's home and you will see plentiful, often expensive evidence of this drive.

One hears also in Psychiatry of the herd instinct; in the Camera Club you may see the evidence of this instinct. Even hoboes have their conventions and Coxey's Armies; the photographer in this respect is no different from the average—he likes to pow-wow, to have friends, make speeches and get elected to things. I know several fine fellows whose camera is largely useful as a ticket of admission to the Camera Club; no harm done here, they don't win any prizes but they do have a good time. The comradeship of photographers is a remarkable thing. I once walked into the Chicago Camera Club, an unknown from the wild and wooly southwest. I was treated as cordially as if I had been introduced by the mayor, or maybe more so. My only credentials were a camera over my shoulder and a certain lingo. This sort of fraternalism I have seen in no other situation unless it is the medical profession. As a force in civilization it may not be felt at the moment, but in a more fully developed form is capable of breaking many obstructing boundaries and prejudices.

Another trait, not confined to genus homo, we will call the tendency to strut. When a rooster crows, he picks a high place where he can be seen; humans are advancing when they choose more subtle ways of showing off. What less offensive way could we find than to show our pictures. It seems to me less offensive than running around the lot kicking up dirt, and more adult than contracting one's biceps muscle.

To have fun for its own sake; to walk abroad in the sun; to record those things of beauty that others may share; to meet with our friends, to sit quietly and view the work of our hands; these things are wholly good. If you are a photographer, you know of these pleasures. And if you know these pleasures, you may take the word of a physician—your chances of wearing a Napoleon hat are small indeed.

Photographic Stimulants

J. H. Sammis

HAVE you been suffering from the Spring doldrums? Do your photographic ambitions need a shot in the arm? Are you pictorially tired and weary, and badly in need of stimulation? Then we suggest that you try Dr. Sammis's Little Curative Measures. Try any (or all!) of them and we think that you'll find upon their completion that your lethargy will be gone, that they surprisingly enough (for they are so *very* simple) have worked their magic and that you'll be ready, yea anxious, to get out and expose some film or drag out the lights and make some portraits, or go into the darkroom and develop those films that have been haunting and taunting you for weeks or making some prints from those negatives that have been staring at you accusingly through their glassine covers since Christmas.

You say "Move over and give me a drag on that pipe?" Now don't be cynical. We know whereof we speak—we've seen it work on others, and most convincing of all, it works on the doctor himself. Just try it once and you'll be another satisfied user.

Remedy number (1). Get out all your cameras, range finders, meters, front lenses and filters, a camel's hair brush and some lens tissue. Now get a clean handkerchief and go over all the bright metal parts on your equipment and polish them. Dust off the glass surfaces and clean them with the tissue. Blow the dust, lint, assorted paper and celluloid shavings out of the cameras. Empty your carrying cases and clean them out. Now put everything back in order. Now don't you feel like loading up with some film and going out and making some exposures?

Remedy number (2). Start cleaning up the darkroom. No, don't save that junk you've been thinking you'd find a use for for the last three years. Throw it away. And throw away those remaining few sheets of outdated paper—it's hard enough to get good quality without handicapping yourself at the outset. And those vaguely remembered chemicals in unlabeled bottles. Get rid of them. Now with a little very dilute hydrochloric acid

(four ounces from the drug store in a gallon of water) let's clean up the graduates, funnels, tanks, trays, empty bottles, printing frame glasses and stirring rods. And let's dry them after washing. Now how about installing those hooks and pegs for holding each item in its own place? Has it worked yet? Aren't you ready to get busy now with some darkroom work?

Remedy number (3). Get out a stack of old photographic magazines, annuals, or go to the library and get them there. In any event, *look at some pictures*. Get yourself to state definitely why you do or do not like each picture. Ask yourself in each case where you are not fully satisfied how you would do the job with improvements. A few hours of this and you should be ready to go out and convince yourself that you *could* do better. Anyone who can look through an annual and not wonder why in the name of all that's photographic the editors included about half of the pictures is just not human. If you're that easily pleased there is no use in your reading any further—you don't need stimulation. You need consolation.

Remedy number (4). If you are a ciné fan, go to the 'phone and call up three other fans and invite them over for an evening of picture showing. Ask each one to bring 15 minutes of film with them, film you've never seen before, preferably. A drink or two (even if its chocolate milk) and an hour of pictures should work wonders. This remedy may be applied equally well to makers of lantern slides.

Remedy number (5). Go to the next camera club meeting. We know you're tired after your hard day but go anyway. If it's any kind of a club at all you'll come away with an urge to do something photographically. If it isn't that kind of a club then you should join one that is or start one that is. If you live in a place where it's possible, visit a club where the members are for the most part more advanced than you are.

Remedy number (6). If there are any salons around, go look at the pictures. Even an art gallery will do—look at etchings, water colors, oils, wood blocks. Perhaps the camera club is going to have a showing of prints—ask them. Or maybe the camera shop has a show on the walls. And how about salons in towns within a radius of one hundred miles? Look in the salon directories in the magazines or write the camera clubs in that town. And then plan to visit. After all, what's a trip of fifty or sixty miles? And please, don't forget to take along that nice clean camera and gadgets.

Perhaps other remedies will suggest themselves to you; starting new projects you've never before attempted should be helpful. Make a paper negative print. Make some lantern slides. Try shadowless lighting, or make-up for portraiture, or self-portraiture, or building a new piece of equipment (even if you find out later that it would have been more economical in the long run to have bought it, it will have served a useful purpose in teaching you more about its construction and workings).

When you look around you and see hundreds of people bored to death with themselves because of their narrow field of interests, resorting to curbstone gossip and rocking chair vegetation to fill in the gaps between eating and sleeping, be thankful you have within your reach a hobby that offers much or offers little, depending on whether you have much or little of yourself to put into it.



"After Work"

Lo Tak-Cho, Hong Kong, China

First Award—Advanced Class

The photographer has made excellent use of back lighting to solve a problem in composition. The long cast shadows fill in the lower part of the picture space most effectively and add much of interest to the picture. The picture is particularly interesting to western eyes because of the unfamiliar subject matter. We feel that the farmer has been caught in a quite revealing attitude for the figure speaks eloquently of the fatigue which marks the close of a hard day's work in the fields. In this connection the backlighting serves a further purpose by indicating the lateness of the hour.

Data: 6 x cm. Rolleiflex; 1/100th sec. at F:6.3, on Kodak Panatomic X in Tabloid Fine grain developer; 4 P. M. in June; 11 x 14" print on Kodabromide G2, in Kodak D-72.



"No Luck"
I. R. McCall,
Evanston, Ill.

† We like this picture primarily for its decorative qualities. It does tell the story indicated by the title, but certainly its story telling qualities are not prominent, and most observers would look upon the picture purely as decoration, at least until the title was brought to their attention. If that be true the title is not well chosen, for it leads away from the dominating qualities of the picture. We must be careful to title our pictures only from what comes through in the print itself, and not from what our memory retains of the occasion on which the picture was made. We believe that the practice of selecting a title from one's recollection of the event is the principal cause of titles which do not support the true feeling of the picture. Such titles are bad because they give the observer the impression that the photographer has failed to appreciate and understand his own picture.

Data: 10½ x 10½ bromide print.



"Porcelain and Glass"
H. K. Shigeta,
Chicago, Ill.

† This picture presents a lovely short scale study in harmony and an interesting interplay of scale and textures. An element of mystery is added to the picture by confusing the planes where the head is addressed comes against the glass containers. At various points the drape appears to be behind, before and within the glass pitcher. Apparently this effect is achieved by bringing two negatives together, the porcelain head being on one negative and the glassware on another. The lighting on the face is particularly well handled to bring out an expression of mysterious inscrutability which adds greatly to the interest of the picture.

Data: 11 x 14" print.

Fifth Award

Advanced Class

♦The effectiveness of this picture is built almost entirely upon the amusing way in which the plant echoes the contours of the goose. This use of comparison is a most effective graphic device. It is used with great frequency in motion picture work. Recall, for example, the anti of Asta, the little wire hair terrier in "The Tin Man." We think that the placing of the snip could be improved slightly if the whole image were moved a little to the right. Enough should be added to the left so that the plant would not cut the left edge of the print and we would trim in as close as possible on the right. It will be an advantage if such adjustment brings some fairly homogeneous foliage into the picture on the left, for that will help to check the slight directional movement toward the left which now throws the picture slightly out of balance.

data: Leica camera; 1/40th sec., at F:9, on Kodak Plus X; 10 1/2 x 11 1/2" print on Kodak Ektabromide N-2.



"Curiosity"

*Dr. A. L. Guerra,
Alameda, Calif.*

Fifth Award

Advanced Class

♦E. Weigel has been quite successful catching a well defined mood of contemplation in this picture. Observe the effectiveness of the pipe-to-mouth gesture in making the reflective attitude of the subject completely apparent. There is a slight but definite degree of distortion in the picture due to a close up camera position. In this case it enhances the effectiveness of the picture because it is not overdone and because it plays up the distinguishing characteristics of this head: big forehead and long narrow shape. The picture as a whole seems to have a slight general greenishness which robs it of the luminous quality that we like to see in a fine print. If we look at the gradations in the face alone it is evident that they are quite good. Consequently it becomes clear that the effect mentioned is due to the tone value of the background. This almost exactly matches the middle tones of the face, and there is no rule, of course, but as a general thing it is better to have the background tone closer to either the highlight or shadow values of the face, rather than in between the two as is the case here.

data: Studio camera; 4 x 5" panchromatic film 13 x 16" bromide print.



"Pipe Dream"

*K. E. Weigel,
Hamilton Field, Calif.*



"Sunday Morn"

Neal Keppel Nickels, Cleveland, O.

First Award—Amateur Class

† This picture is chiefly interesting as a fine composition in line, mass and subtle tonal harmonies, but the subject matter is sufficiently strong in its own right to command a considerable degree of attention. Observe how the whole picture takes on the emotional qualities of a modern building which constitutes the center of interest. The clean sharp edges, the precise arrangement, the brilliance of the tonal rendition and the clear atmosphere all combine to give the picture a clean cut, brilliant, geometrical quality that is most effective. This picture offers an illuminating example of how the artist should "feel into" his subject matter until he fully realizes exactly what its essential qualities are. One does not take pictures like this by simply finding the subject and snapping the shutter. It would be easy as pie to photograph this subject and entirely miss all the qualities mentioned above. Anything different from the exact filter-exposure-development relation which was used would almost surely decrease the success of the picture in proportion to the degree of departure. In this case the red filter was the most important choice, but the other factors had to conform, of course. The photographer wanted to cut out aerial haze, to make things as sharp, clean and bright as possible. He wanted the building to stand out in brilliant contrast against water and sky, so the red filter was the answer.

Data: 1/50th sec. at F:8; on S.S. Pan, with red filter; 11 x 14" print on Defender Velox Black DL #3.

Second Award

Amateur Class

♦ As has often been said the two essentials of a fine flower picture are a lovely, graceful arrangement and excellent technical quality which will bring out textures. This picture is strong in both respects. Both the movement of the branches and placing of the various blossoms are nicely worked out and there is a sufficient degree of emphasis on the lower, larger blossom so that the whole thing ties together nicely. A less obvious virtue of the composition is the tonal contrast provided by the dark leaves, their placing to provide emphasis at appropriate points and the relation between the total area of dark and light. All of these factors are nicely adjusted in this arrangement. Notice also how the background tone maintains good, but not violent contrast.

Data: 4 x 5" Agfa SSS Pan, in Glycin developer; 11 x 14" chloro-bromide print, in M. Q.



"Blossoms By Dogwood"
Ralph Walker,
Fairview Village, Ohio

Third Award

Amateur Class

♦ This picture has superb technical quality, and the photographer has caught an alert, intent expression that is most satisfactory. It is unfortunate that the relationship between head and shoulders could not have been worked out more fully. This is rather awkward at present and gives the impression that the head is tilted somewhat unnaturally. The shoulder line itself is awkward and this in turn has caused the photographer to trim in rather closer than he would otherwise do in an effort to minimize the deficiencies of the shoulder line. The result is a neatly photographed head, the effectiveness of which is slightly marred by uncomfortable placing in the picture space.

Data: 3 1/4 x 4 1/4" Series D Graflex; Agfa Superan Press in Agfa 17; 11 x 14" print on Gevaert Evaluxe, in manufacturer's formula.



"William Horsfall"
Richard Wagner,
San Francisco, Calif.



"Homeward Bound"

Henry M. Meyer,
Lakewood, Ohio

facial expression, etc. As things are the figures serve more as symbols of working men in the abstract. We view the group as a whole, as part of the scene, and this quality contributes greatly to the strength of the picture. We again find a splendid example of the importance of fully realizing the essential qualities of a subject before exposure, for a longer exposure would have completely ruined this picture.

Data: $9\frac{1}{4} \times 11\frac{1}{2}$ " bromide print.

Fourth Award

Amateur Class

♦ We feel that this is an extremely powerful photograph, the strongest thing in either group. It brings us an astonishingly revealing picture of the muddy, dreary drabness of a factory district, with the men walking homeward at the close of the working day. It could be better technically; the fuzziness of the near figure is unfortunate and the tone values are muddy, but in every other respect it is fine indeed. Notice how important it is to keep away from too much detail in the shadow side of the figures. If these were shown in full detail we would begin to look upon them as individuals, begin to note details of



"Dreary Road"

M. I. Zimmerman,
Relay, Md.

Fifth Award

Amateur Class

♦ Mr. Zimmerman has handled this very interesting landscape subject very nicely. The eye follows the muddy road up to the small building beneath the tree and is then pulled over to the brilliantly lit larger building on the left. There is sufficient detail shown to give a strong impression of the dilapidated condition of building and land, but a too literal rendition which would give the picture a cluttered appearance is avoided principally through the device of photographing under a strong side lighting. We believe some slight improvement is obtained by trimming from the top so that the large tree reaches almost to the top of the print. This helps the tree to look large and impressive and compacts the arrangement by eliminating an unnecessary expanse of sky.

Data: $2\frac{1}{4} \times 2\frac{1}{4}$ " Super Ikonta B; $1/25$ th sec. at F:22; Kodak Super XX, in DK-20, with K-2 filter; late afternoon in February; clouds printed in; 14×17 " print on Kodak Opal Z, in D-52.

Monthly Competitions

Scoring for Club Trophy Cups

The following won points for their respective clubs in the Advanced Class: Dr. A. L. Guerra, for the Alameda Photographic Society; I. R. McCall and H. K. Shigeta, for the Fort Dearborn Camera Club; Lo Tak-Cho, for the Photographic Society of Hong Kong. K. E. Weigel has no club affiliations. The rules specify that an individual can not earn more than 5 points for a club. Consequently only 4 of the 5 first place points earned by Mr. Lo Tak-Cho can be credited to the Photographic Society of Hong Kong since that brings his total to 15. He is still eligible to compete but can not win further points for the club.

The following won points for their respective clubs in the Amateur Class: M. I. Zimmerman, for the Camera Club of Maryland; Neal Keppel Nickels, Ralph Walker, and Henry M. Mayer, for the Cleveland Photographic Society; Richard Wagner, for the Photographic Society of San Francisco.

Contributing Clubs

Alameda Photographic Society (Alameda, Calif.)	Oakland Camera Club (Oakland, Calif.)
Burbank Camera Club (Burbank, Calif.)	Pacific Camera Guild (San Jose-San Mateo, Calif.)
California Camera Club (San Francisco)	Pasadena "Y" Camera Club (Pasadena, Calif.)
Camera Club of Lehigh Valley (Allentown, Pa.)	Photographic Society of Hongkong (Hongkong, China)
Camera Club of Maryland (Baltimore, Md.)	Photographic Society of San Francisco (San Francisco, Calif.)
Camera Club of Waterbury (Waterbury, Conn.)	Rothschild Camera Clinic (Los Angeles, Calif.)
Central Florida Camera Club (Winterhaven, Fla.)	San Francisco Camera Clique (San Francisco, Calif.)
Cleveland Photographic Society (Cleveland, Ohio)	Signa Phi Nothing (Sacramento, Calif.)
Dallas Pictorialists (Dallas, Texas)	Women's Photographic Society of Cleveland (Cleveland, Ohio)
Detroit Camera Club (Detroit, Mich.)	Yellow Springs Camera Club (Yellow Springs, Ohio)
Fort Dearborn Camera Club (Chicago, Ill.)	
Kamera Kranks (Chico, Calif.)	
Miniature Camera Club of N. Y. (New York, N. Y.)	

Standing of Clubs

Large Clubs—Advanced Class		Large Clubs—Amateur Class	
Fort Dearborn Camera Club	20	Cleveland Photographic Society	20
Pasadena "Y" Camera Club	17	Detroit Camera Club	19
California Camera Club	15	Miniature Camera Club of New York	17
Small Clubs—Advanced Class		Photographic Society of San Francisco	11
Photographic Society of Hong Kong	20	California Camera Club	5
Yellow Springs Camera Club	5	Small Clubs—Amateur Class	
P. I. C. Pool	4	Camera Club of Maryland	6
Rothschild Camera Clinic	4	Kamera Kranks	6
Alameda Photographic Society	2	Tulare Camera Club	4
Remac Camera Club	1	Dallas Pictorialists	3
Kamera Kranks	1	Greenville Photographic Society	3

SUMMARY OF COMPETITION RULES

1. Open to all, amateur or professional, club member or non-club member.
2. Closing date 1st of each month.
3. Indicate class of entry (Advanced or Amateur) and club membership (if any) on back of each print. Technical data should accompany each print.
4. No entry fees or blanks required.
5. Stamps must be enclosed for return of prints.
6. Full explanation will be sent free on request or may be seen on page 47 of January 1941 issue.



A good time was had by all at the Model Contest, held June 6th at the Hotel Leamington, Oakland, Calif., as a preliminary to the Western Amateur Camera Conclave, which opens at the same spot on June 25th. About 35 girls participated, from which a three man jury selected the nine loveliest to serve as models at the Conclave.

Upper left: The nine winning girls. Standing, left to right: Naomi Linhares (Dorothy Farrier Studio), Annalouise Freise (DeVine Academy), June Haas (Farrier), Ruth Fulton (unattached), Roberta Falk (Farrier). Seated, left to right: Dorothy Scanlon (Farrier), Jacquelyn Corker (unattached), Beth Lesser (unattached), Bette Brackett (Farrier).

Upper right: A model parades as shutters click.

Lower left: June Haas (Dorothy Farrier Studio) and photographers.

Lower right: The much harrassed jury. Left to right: Roland Calder, Director of Photography at the Modern School of Design; George Allen Young, Editor, Camera Craft; Robert D. Vawter, pictorialist.

DON'T MISS!

The Western Amateur Camera Conclave

June 25-28

Hotel Leamington, Oakland, Calif.

Program and Registration Card, One Dollar, From Your Dealer

Club Notes

(Continued from page 347)

Photographic Instruction

The Rochester Athenaeum & Mechanics Institute, of Rochester, N.Y., is a non-profit organization whose objective is providing educational opportunity for the city's developing businesses and industries. Since the rapid growth of technical specialization has resulted in heavy demands for technically trained persons, the Institute meets this demand by offering technical and professional degrees of training in its day school, together with a wide range of similar courses in the evening school. Of special interest to photographers, particularly those considering it as a profession, are the Institute's photographic courses. Complete details on these courses, as well as a very interesting booklet, "If You Are Considering Photography," which describes the possibilities of the photographic field, may be obtained from the above address.

A series of short evening courses in photography for the summer months has been announced by Roland Calder, Director of Photography at the Academy of Modern Design, 478 Santa Clara Ave., Oakland, California. Each course includes six meetings and the enrollment fee is very nominal. Subjects to be covered include: Picture Making, Print Quality, Home Portraits, Composition, Enlarging, Dodges, Paper Negatives, and Special Field Trips. For complete details write the above address or phone GLencourt 8498.

The New York Institute of Photography announces the inauguration of a new series of short, inexpensive courses in the fundamentals of photography. The courses are carefully planned to embrace a maximum of essential training in every phase of photographic work. While condensed, their scope is broad enough to give the student a good technical foundation which he can apply effectively to his own picture-making requirements. The courses include Fundamentals

Photography, retouching, portraiture, commercial, motion picture and color photography. While many types of students will find these concentrated or "capsule" courses suited to their individual needs, the instruction is ideal for vacationists, tourists and hobbyists. Tuition fees for the new courses are as low as \$36. This brings the opportunity to learn photography from experts within reach of practically everyone who owns a camera. All instruction is individual. There are no classes. Complete audio and laboratory facilities are used by the students and time for attendance may be worked out on a very flexible basis to fit the student's convenience in daytime or evening. A descriptive "short course folder" describing the new courses will be sent upon request to the New York Institute of Photography, 10 West 33rd Street, New York City.

New Clubs

A new Camera club for Chinese boys and girls has been organized in Oakland, California. The type of camera the would-be member has is immaterial. Darkroom facilities will be available to all members and instruction in photographic technique will also be offered. The Chinese Photographic Society of Oakland invites all Chinese camera fans to write to Mr. Bruce Chin, 342 8th Street, Oakland, California, for further information regarding the Society.

A new departure in hotel service of particular interest to everybody connected with photography has been decided upon by the management of the Hotel Stevens, Chicago, Illinois, who will provide camera club facilities for guests of the hotel. According to an announcement from the hotel management they will be ready for use during the forthcoming 1941 Combined Photographic Industry Conventions and Trade Show to be held in the Stevens Hotel the week of August 18th. Taking cognizance of the fact that amateur photographers form a large section of the traveling public the Stevens General Manager Joseph P. Binns decided last year following the 1940 Combined Photographic Industry Conventions and Trade Show at his hotel that photographic facilities for the traveling public were a "must" on the guest service list. Plans have been drawn up and actual construction will start immediately. The developing and printing section will be equipped with the latest devices and present plans call for at least two developing and printing rooms with possibilities of three of each. The meeting room will be furnished in auditorium style with the most modern lighting and equipment and will comfortably seat at least 50. It will be provided with screens for motion and still projection and for meetings and other uses of the various smaller clubs throughout the Chicago region, without charge. For the casual dropper-in there will be a comfortably furnished lounge where he or she may sit and talk about photography with others interested in their hobby. An attendant will be on duty at all times as well as an experienced worker to aid and assist members, their friends and guests of the club in their photographic problems. The lounge will also be equipped with illuminated display cases where photographic manufacturers may display their wares free of charge, with placards telling where merchandise may be purchased from local dealers. The privilege of merchandise display will be rotated so that every manufacturer may have an opportunity of showing his stock before those who visit the Club. Membership in the Club will be open to all guests of the Hotel Stevens including those who have been guests within three years and the same

privileges will be afforded to all members of photographic clubs in the Chicago area, as well as to photographic dealers and others throughout the country—and this without charge or obligation of any kind.

Contests

Amateur photographers living in Union County, New Jersey are invited to compete in a photographic contest, sponsored by the Union County Park Commission. Forty merchandise awards will be made with a value of \$170.00. Closing date is Sept. 30th. Entry blanks may be obtained by writing to Amateur Photo Contest, P. O. Box 231, Elizabeth, N. J.

News has just been received that again this year The Ice Follies, now playing at Winterland in San Francisco, will stage a Candid Camera and Movie (16 & 8 mm.) Contest. As in previous contests prizes will be awarded for the best shots taken at any regular performance. According to the information folder, it is not necessary to take flash shots for there is sufficient light providing fast film is used. With the addition of a balcony, movie fans will have an opportunity to shoot some beautiful pictures. First prize for the still contest is \$25.00 while for the movie contest it is a \$20.00 merchandise order. Over 20 prizes will be awarded to contestants. Entry blanks, rules, and exposure information may be obtained from all San Francisco photographic dealers, or from The Ice Follies, Winterland, Post & Steiner Streets, San Francisco.

Cash prizes for cat pictures are offered by the Beresford Cat Club of America. The contest is open to all photographers amateur or professional. Closing date is Nov. 8, 1941. Entry blanks may be obtained by writing to Mrs. A. A. Gour, 6638 Kimbark Ave., Chicago, Ill.

The New York Herald Tribune is now conducting its Seventh Annual Snapshot Contest. Awards are made weekly for winning prints and the contest will continue until Sept. 6, 1941.

Over 50 prizes worth more than \$1100.00 are being offered in a nation-wide contest sponsored by the DeJur-Amsco Corp., Shelton, Conn. The contest is open to all and the rules are simple. It opens July 1st and closes

Sept. 30th, 1941. See your local dealer for entry blanks and rules or write the above address.

The Second Annual Photographic Contest of the White Fence Farm has just been announced. The contest is open to any photographer and twenty silver ash trays will be awarded as prizes. In addition, a Grand Prize of a silver cup will be awarded to the print judged the best in the show by public ballot. Write for entry blanks to the White Fence Farm, Route 2, Lemont, Ill. Closing date is Aug. 18th, 1941.

More than \$500.00 in cash prizes and additional merchandise awards are offered in a new contest entitled "Picturesque Long Island." The contest is sponsored by the Long Island Association, the Photographic Society of America and the Metropolitan Camera Club Council. Subjects must be exclusively scenes and activities on Long Island and adjacent waters. The contest is open to all amateur photographers, closing date Nov. 1, 1941. A complete set of rules may be obtained from the Long Island Association, 273 Pennsylvania Station, New York City or from the Photographic Society of America.

A photographic contest for amateurs in the New York area has been announced. George Murphy, Inc., 57 East 9th St., New York City, \$40.00 in merchandise awards will be awarded for photographs, on any subject selected as prize winners by a competitive jury. All entries must be brought to the above address (not mailed).

That the fast-growing aviation industry recognizes the wide-spread interest in amateur photography, is indicated in a snapshot contest conducted each month by "The Lycoming Star," monthly publication of the Lycoming Division of Aviation Manufacturing Corporation, manufacturers of aircraft engines and propellers, in Williamsport, Pennsylvania. The contest is open to readers of "The Lycoming Star," whether or not they are affiliated with aviation. Every entrant is presented with a gold-plated Lycoming wing lapel emblem and the winner of each month's competition receives a check for \$5.00. At the end of the year the month's prize-winning snapshots will be judged for a grand prize of \$25.00 which is to be awarded the photograph voted the best of the year.

Notes and Comments

New Products

A new convenience for the amateur photographer who makes his own prints is the Kodak Home Print Washer, which quickly and effectively removes the hypo from prints. Operation is extremely simple. The Kodak Home Print Washer is placed in the sink and a rubber hose connection is at-

tached to the faucet. A drum, 6 3/4 inches diameter and 8 inches long, is lifted from the tank, and the cover, at one end, is removed so the prints can be placed inside. This done, the cover is replaced, the drum again put into the tank, and the water is turned on and regulated so that the drum turns slowly. It is designed to accommodate twenty-five single weight 4 x 5 prints.

the equivalent in smaller sizes, for maximum efficiency. With the correct flow of water at about 70 degrees, the recommended washing time is 45 minutes. Attractively finished in gray, the Kodak Home Print Washer retails at only \$5.

Of interest to the many owners of cameras having focusing scales is the announcement, by the Eastman Kodak Company, of a new split-field military type range finder. The subject image, when viewed through the eyepiece, is clearly seen, along with a pointer and translucent range scale. The image is divided into two sections by a horizontal line. When a knurled ring is turned, the upper half of the image is brought into correct alignment with the lower half. The pointer indicates the correct distance, on the translucent scale, of the range finder to the subject. The focusing scale on the camera is then set to correspond with this reading. In addition to the translucent scale and pointer seen through the eyepiece, a range scale engraved on the face of the knurled ring gives the same reading. The Kodak Service Range Finder works at distances from two feet to infinity. Complete with suede finish carrying pouch, it retails at \$5.75.

After four years of investigation into the problems of fine-grain development, the Agfa Ansco Research Laboratories have perfected Finex, a new fine-grain developer. Designed especially for the critical and experienced worker, Agfa Finex offers the following advantages:

1. Extreme fine grain.
2. No loss in inherent film speed.
3. Convenient ready-to-use liquid form.
4. Long useful life with tested replenishment system.

The exceptional results obtainable with Finex Developer are due to the use of an entirely new developing agent which extends developing action deeper into the emulsion layer and reduces the clustering of silver particles, thereby resulting in smoother, finer grain with no loss of inherent film speed. Finex is available in a specially packed unit containing 16 oz. of Finex Developer, two 8-oz. bottles of Finex Replenisher, a graduated cup for measuring Replenisher, and a 24-page booklet on fine-grain processing. Since both the Developer and Replenisher are in convenient, liquid form, ready to use, no mixing, filtering, or dilution are necessary. The label on the 16 oz. bottle of Developer contains a development-record chart enabling the user to keep accurate check of the number of rolls developed. The simple, yet laboratory tested, replenishment system permits development of 30 rolls of 36-exposure miniature (35mm.) or 30 E2-size rolls of film per 16-oz. bottle of Developer. The replenishing system has been worked out so accurately that the developing time remains constant throughout the entire life of the developer. The graduated measuring cup simplifies addition of the replenisher. The 24-page instruction book not only gives detailed directions for the use of Finex, but also contains useful information on fine-grain developing technique in general. The complete unit is packed in an attractive carton especially designed for counter display and is avail-

able through regular photographic dealers at \$2.75.

The Princeton Photo Switchboard operates as an efficient light control system in either the darkroom or the studio. In the darkroom, it permits the photographer to control all his lights from one handy source, so that enlarger, safelight or general light may be switched on or off at will. In the studio, this small unit serves as a high-low control for photofoods, switches a spotlight on or off from camera position and is also useful in flash work. Write the Price Industries Corp., 130 W. 17th St., New York City, for complete details.

Two new, small, low-priced, color-corrected flashbulbs have been introduced by the Wabash Photolamp Corp., of Brooklyn, N. Y. These new bulbs, Nos. 041 and 4013, can be used with all types of cameras, including focal plane. Their self-filtering blue jackets entirely eliminate the need for any separate filters when shooting either indoors or outdoors with daylight type color film. Prices are 16c and 20c each. Wabash has also announced a new high-powered Superflash No. 3X. It is packed with an exceptionally high-powered light output of 4,500,000 peak lumens that are developed in a broad peak instantaneous flash of 110,000 lumen seconds. Price is 25c per bulb.

The Crown Multiflash Control Unit has been announced by the Fotoshop, Inc., 18 E. 42nd St., New York City. It can be used with all synchronizers and is priced at only \$35.00. The Crown Multiflash Control Unit will fire from one to forty bulbs either with your synchronizer or by open and shut flash; it operates from regular house current or when this is not available a 110-volt dry cell will serve as the power source; it may be fired by remote control; and the power switch has a signal light which may be read at a distance. Write the above address for descriptive material.

The finishing touch for all well-edited movies, professional-like fades and wipes, is easily and quickly applied with the new Craig Fotofade, which permits the joining of odd scenes with smooth fades or wipes—dissolving one into the other without abrupt loss of continuity. No special equipment is necessary and the \$1.00 bottle is sufficient for hundreds of applications. Available also is a complete Fotofade Kit containing special masking tape, Fotofade and instructions. Manufactured by Craig Movie Supply Company, 1053 South Olive Street, Los Angeles, California.

Announcement comes from Burke & James, Inc., that Solar Enlargers are now fitted with a three-filament lamp that provides evenly distributed 50, 100 or 150-watt illumination and a special three switch position socket. This really worth while improvement enables the operator to match the intensity of the light to the density of the negative. On thin negatives, the lower light intensity tends to improve print contrast, while on dense negatives a more powerful light acts to provide a wider gradation of tones in the print. This new feature is now being furnished as standard equipment on Solar Enlargers at no increase in price.

An entirely new idea in pocket picture albums is announced by Edwin M. Phillips

A Co., 129 Lexington Avenue, New York City. Selling at only 10c each, these attractive little albums need no paste, no water, no corners. Instead, they use Miracle-strips, utilizing pressure-sealing adhesive, which works just like a simple first-aid bandage strip. Merely peel off the protective covering, then finger-smooth your print onto the strip. Result is that each print is a full page, its beauty fully enhanced. Clever use of clear plastic on the front permits one's favorite picture to become the front cover of the album. Each book holds a full roll of prints. Unbreakable patented plastic tube-binders complete the ensemble. Available at all dealers.

The American Nickeloid Co., of Peru, Ill., America's oldest and largest producer of Chrome squeegee plates, recently developed a high quality, yet inexpensive, Chrome Steel plate. These plates are guaranteed against chipping or peeling and are highly resistant to rust, corrosion and abrasion. Although the new, low cost Chrome Steel plate is not guaranteed to give as long service as the higher-priced Chrome Brass or Chrome Bronze plates, the product is finding ready acceptance among photographers who are interested in a good quality but inexpensively priced squeegee plate. **Burke & James, Inc.**, 223 W. Madison St., Chicago, Ill., are distributing American Bonded Chrome Steel squeegee plates in the mid-west.

The Panatech Senior Tripod, is the first product introduced by a new photographic manufacturing organization, the Panatech Corp., 485 Fifth Ave., New York City. The Panatech Tripod is of sturdy, all-wood construction. Fully extended it measures 60 inches and when closed 34 inches. It has a sure-grip locking device and is equipped with rubber pads on the legs that prevent slipping. Price is \$5.50. For further details write the above address.

The Cinemaster Duo 8mm. movie camera, introduced by the Universal Camera Corp., 28 West 23rd St., New York City, offers many important features at a remarkably low price. It will accommodate any double 8mm. film in black and white or color, and in addition will take Univex Straight-Eight film. Other features include: an extinction type exposure meter, three speeds 16, 24 and 32, interchangeable lenses, quick loading, footage counter, a powerful spring motor, and many others. The Cinemaster Duo 8mm. movie camera is available in a variety of models and a wide price range. See your dealer or write the above address for descriptive material.

A new **Model C-2 of the Elwood 8x10 Commercial Enlarger** has been announced by Elwood Pattern Works, Inc., Indianapolis, Ind. In addition to the many advantages for which this enlarger is famed, the new model offers many new features: a larger, deeper reflector, perfect illumination, a heat absorbing light filter, a larger stand, all metal front, and a bronze carriage for the front. Complete descriptive material on the new Commercial Enlarger and other Elwood Enlargers is available upon request to above address.

Thoroughly deluxe in construction, a new field case for the Kodak Ektra has been announced by the Eastman Kodak Company. The case is made of Grade A brown cowhide, stitched with strong yellow thread, and lined with skiver leather. All edges are stained and polished. Designed to accept the Kodak Ektra with the 50 mm. Kodak Ektar f:1.9 lens, the 50 mm. f:3.5 lens, or the 35 mm. f:3.3 lens in position, the case is supplied with a double-ended neck strap. One pair of ends is attached to the case and the other pair to the camera. Thus, when one is about to use the Ektra, there is never any danger of dropping the camera when removing it from the case. Beautifully made, this convenient field case for the Kodak Ektra retails for \$10.

Greater ease and convenience of focusing are now made possible to Kodak Advance Enlarger owners by merely substituting the Microfocus Attachment for the spring-actuated locking device with which the enlargers are equipped. This new accessory has a double-flanged wheel securely held against one of the two vertical guide rods. As the focusing knob is turned, the lower bellows casting is smoothly raised and lowered for accurate focusing adjustments. The Microfocus Attachment retails for only \$1.25.

Henry Herbert, 485 Fifth Ave., New York City, is distributing the Minelum Viewer, a small 2" x 2" pocket view that may be carried around in the vest pocket. This remarkable little item shows up your Kodachromes and positive black-and-whites unusually clear and beautiful. It is made of all metal, with a ground glass, and is fitted with a battery and electric bulb. The bulb lights up when you press the side of the case. The handy, compact Minelum Pocket Viewer is acclaimed as the answer to the Kodachrome fan who likes to view his pictures in full color, yet does not want to be annoyed with the usual bulky table types. It is sturdily constructed to take lots of punishment. And its low list price of just \$1.50 complete makes it a value not to be missed.

To further assure perfect results in the darkroom, Mansfield Photo Research Labs., 701 S. LaSalle St., Chicago, Ill., announce a wetting agent of extreme concentration known as Kwik-Wet. A few drops added to any paper developer results in complete rapid coverage and even development of the print. Similarly, a few drops in any film developer prevents air-bells and subsequent pinholes, while a small quantity in the hypo makes for accelerated and more thorough fixing. As a final rinse, Kwik-Wet added to a tray of water assures spot-free drying, and the efficiency of any after processing bath such as toner, reducer, intensifier, bleach, etc., is greatly heightened by the use of Kwik-Wet. A handy shaker-top bottle containing sufficient material for treating 75 pints of photographic solution sells for 35c.

A new, low-cost, smaller size **dark room ventilator**—the "Ilgvent," offered by the Ilg Electric Ventilating Company, Chicago—meets a special need for dark room service in either home or small commercial studios. The ventilator changes the air approximate-

ly every two minutes, and exhausts foul air, dampness and odors without introducing light. The unit is composed of an Ilg standard self-cooled motor propeller fan mounted in a steel panel; a scientifically designed baffle or "hood" which positively prevents introduction of light without restricting air flow; and a fan guard. The ventilator is powered by Ilg's exclusive "miracle motor that breathes," a feature of which is that it does not "gum-up" from contact with foul air. Combining the low operating cost of an open motor with the protection of a fully enclosed motor, it adds long life to the entire unit. The ventilator can be operated on a light circuit by means of a common extension cord and plug, using no more current than a small electric light bulb. In addition to the Ilgvent model (350 C.F.M.), two larger size models are available: the Ilgette, 450 C.F.M.; and the 12" Ilgair, 750 C.F.M.

Hypo-Chek, a new preparation that warns immediately when hypo is exhausted, is the latest Mansfield "Solution for Your Photographic Problems." A few drops, shaken into a worn-out fixing bath, cause a tell-tale milky precipitate to form at once. But if the bath is useable no such signal appears and the Hypo-Chek will not have harmed the fix. Listing at 30¢, each shaker-top bottle contains sufficient material for 225 tests.

The American Bolex Co., Inc. now announces the new Bolex's Automatic Splicer. Designed in Switzerland, produced in America, precise in operation, beautiful in appearance, simple and rapid in operation, and unsurpassed in performance. This splicer, performing with the greatest efficiency in joining 8 mm., 9½ mm. or 16 mm. film, is entirely made of steel, heavily plated in satin chrome. The whole splicer is mounted on a skid-proof and warp-proof beautiful ebony finished wood base. Cutting leaves are precise to the 'nth degree, and splices made with Bolex's leave neither a white or black line, i.e., emulsion does not overlap or separate. The file of hardened steel is double-edged for lifetime service and, when scraping emulsion, does so evenly and without difficulty. This file is accelerated in operation by means of a spring on its spindle. Grooves in the cutting leaves catch surplus cement and prevent it from running down films. This feature is particularly important in preventing damage to Kodachromes. The many exclusive and advanced features of Bolex's puts it out front among high grade splicers. For further information, see your local dealer, or write direct to the American Bolex Co., Inc., 155 East 44th Street, New York, N. Y.

Providing sufficient space for camera, exposure meter, flashgun, and other accessories, a new handy, roomy kit, Fotos Utility Gadget Bag is priced at only \$1.95. Made of beautiful double texture water-proof duck with genuine russet leather trim, it is exceptionally handsome in appearance. A separate pocket is available on the outside for filters and other small gadgets. A lifetime zipper zips open in a jiffy. Fotos Utility Gadget Bag is available in brown or blue, from Fotoshop, Inc., 18 East 42nd Street or 136 West 32nd Street, New York City.

Because the combined camera base and revolving-tilting tripod head built integrally with the Graphic View Camera was received with such favor by the photographic public, the Folmer Graflex Corporation is now marketing a similar tripod head for use with any camera ordinarily mounted on a portable, folding tripod. This new product, known as the Graphic Pan-Tilt Tripod Head, is light, solid and flexible. It tilts 100° forward or 25° backward, and rotates a full 360°. This new unit will fit into the Speed Graphic Special Carrying Cases (which accept a tripod), the Crown View Camera Case, and the new Speed Graphic De Luxe Cases. Both the rotating and tilting movements are controlled and locked by a single handle with a black, extruded plastic grip. The head is so designed that it may be half-locked with sufficient looseness to permit minor adjustments of the camera angle, and a slight further turn completes the locking without any change in the camera's position. The adjustable camera-clamp screw, pioneered by Graflex many years ago, is further improved by larger grips and by the addition of a spring to keep the clamp-screw in the up position so that insertion of the screw in the camera's tripod socket is greatly facilitated. The top of the Graphic Pan-Tilt Tripod Head is 2½" square and the circular base has a diameter of 3½". These broad surfaces furnishing great stability and solidity when a firm tripod is used. And many a movie-maker will welcome this new product, since it has characteristics not found in many similar tripod heads made primarily for use with amateur movie cameras.

Charles K. Flint, general manager of the Kodak Park Works, was elected a vice-president of the Eastman Kodak Company at a meeting of the board of directors recently in the Kodak Office. The board's action brought the number of Eastman vice-presidents, reduced by a retirement and a promotion, again to five. Appointment of Edward S. Farrow as production manager of Kodak was also announced by the company, together with the appointment of William S. Vaughn as assistant production manager. Mr. Farrow succeeds Dr. Albert K. Chapman, who was elected May 7 to be vice-president and assistant general manager. Mr. Vaughn succeeds Mr. Farrow, who was formerly assistant production manager. Mr. Flint has been general manager of Kodak Park since the beginning of 1936, when Albert F. Sulzer, now general manager of the Kodak Company, relinquished his duties as vice-president in charge of Kodak Park. Mr. Flint, a 1901 graduate of the Massachusetts Institute of Technology, came into the employ of Kodak as construction engineer in the building of the Kodak Office on State St. after ten years with a firm of engineers and contractors in New York. For the next two years he was engineer in charge of construction of the Canadian Kodak Company's plant at Toronto. Then for five years he was superintendent of engineering and maintenance at Kodak Park and for fifteen years he was assistant manager. Mr. Flint's original home was Stoughton, Mass. Mr. Farrow, a native of

Georgetown, Del., was graduated from the Asbury Park High School and the Massachusetts Institute of Technology, and then received the graduate degree of master of science from the School of Chemical Engineering Practice at "Tech." At Kodak Park he worked on the development of manufacturing methods for cellulose acetate and became assistant superintendent, then superintendent, of the chemical plant. He was assistant to the plant manager for four years and then, in 1934, went to the Kodak Office as assistant production manager. Mr. Vaughn, born in Kansas City, was educated at Vanderbilt University and Rice Institute and subsequently went to Oxford University, in England, as a Rhodes Scholar. He has worked for Kodak in Rochester continuously since 1928 except for two years with Kodak Limited in London, England.

Just received from Bell & Howell is the announcement of a new device which is said to eliminate completely all audible trace of sound "flutter."

"Isolation," say B & H, "is the answer. With the oscillatory stabilizer we have completely isolated the stop-and-go film movement from the sound drum. Thus no variations in film speed ever reach the scanning beam, where the sound is 'taken off' the film, and 'flutter' is eliminated."

The announcement goes on to explain that as the film leaves the usual sound sprocket, it passes through the new oscillatory stabilizer, where any remaining irregularities in film flow, no matter how minute, are first reduced to a still lower degree and are then completely absorbed from the film flow by an oscillatory movement operating on the principle that opposing forces that are equal, cancel each other. Thus, it is claimed, only a constant, even flow of film can reach the sound drum and the scanning beam. B&H claim that in this manner, the cause of sound "flutter" is killed at the source, and that Filmosound reproduction of music and the spoken word reaches the ear with a new fidelity, smooth and even to the a degree hitherto unknown.

Developed by Bell & Howell engineers in the world's largest motion picture research laboratory, the oscillatory stabilizer is patented and is available exclusively on Bell & Howell Filmosounds.

For further information, write to the Bell & Howell Company, 1801 Larchmont Avenue, Chicago, Illinois.

To produce 8" x 10" genuine wash-off relief 3-color prints on paper at a price the average manufacturer can afford is the purpose of Color Prints, Inc., 1711 North Vermont Avenue in Hollywood, California. With production hitting the near capacity mark, they are busily beginning their second month in business.

Mr. Frederick Bryant, sales manager of Color Prints, and formerly with Technicolor, Inc., states, "Not since the advent of Kodachrome has it been possible to get 8" x 10" color prints at a price everyone could pay. Now Color Prints, Inc., by means of standardization on 35 mm. and Bantam size Kodachrome transparencies and a standard 8" x 10" print size, are able to produce genuine wash-off relief, 3-color prints on paper, individually balanced, for only \$3.00

per print. Additional prints can be had from the same negative for \$1.00 per print ordered within 60 days.

"These low prices now make it possible for manufacturers of products where color plays an important part to prepare sales manuals, display cards and advertising and use actual color prints of their products.

"One large Pacific Coast oil company is already at work preparing a sales manual in full color. When finished, each manual will have over 25 actual true color enlargements. This is but one of the possibilities that color prints offer."

Frank A. Emmet Company, 2707 West Piccadilly, Los Angeles, West Coast photographic dealer, announces the opening of a branch sales office at 420 Market Street, San Francisco, and the appointment of Jack Bartlett as manager and in charge of sales in Northern California, Washington and Oregon.

"Greatly increased sales in the northern territory necessitated this expansion," stated Mr. Emmet, "and much of this increase is directly attributed to the splendid ground work and sales effort of Jack Bartlett, who has been working out of Seattle for the past year. Mr. Bartlett has very definitely earned this promotion," added Mr. Emmet, "for he has successfully introduced the various feature lines handled by us throughout his territory."

The Frank A. Emmet Company are exclusive distributors in the west for the American Bolex Company; Princeton Filters and Accessories; Britelite Truvision Products; Kreuter Cases; Academy Spotlight; Nork Foot Switch; as well as distributors for Hollywood Film Enterprises Cartoon Home Movies; G. M. Meters; Wollensak Lenses; Duffay Color Film; and many other lines. This firm is a newcomer in the west, but ranks among the major distributors of this area.

A complete card index file of photographic literature published throughout the world is being compiled and kept up-to-date by students in the Department of Photographic Technology at Rochester Athenaeum and Mechanics Institute, Rochester, N. Y. The file will list all published papers and abstracts of speeches in the field of photography. The project has been instituted as part of a regular course in photographic literature included in the three-year program of study offered by the department.

Announcements

Kodachrome transparencies will be masked and separated in a new deluxe Separation Negative Service offered by the Color Photography Department of Fotoshop, Inc., 18 East 42nd Street, New York City. For contact separations from all size Kodachromes up to 4x5" the charge is \$4.50; for enlarged separations up to 4x5" from 35mm and Bantam transparencies the charge is \$5.50. This new service, used by leading photo engravers and studios, insures extremely accurate color values, controls contrast and gradation, and avoids distortion of highlight tones.

(Continued on page 405)

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But it takes many such outstanding features to explain the Master's widespread popularity. Some of these features are listed at the right; and your dealer will be glad to demonstrate them to you. Visit him today, or write for the complete story. Weston Electrical Instrument Corporation, 617 Frelinghuysen Avenue, Newark, New Jersey.

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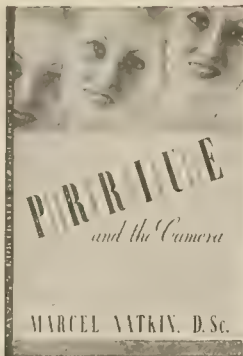
Extreme sensitivity — provides readable, accurate settings in extremely low light . . . as well as dependable measurements in high brightness.

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CURTIS CAMERA FOR SALE

◆Curtis Color Camera Type C 5" x 7" complete with 12 extra film holders, carrying case and F6.8 Ross stock Anastigmat lens, all practically new. \$539.50; sell cheap, make offer. 324 Commercial, San Francisco, Calif.

SWAPS

◆\$400 100 watt 4-band radio transmitter, and for 16 mm. Bolex, Victor, Bell & Howell outfit, tax or lenses. Write for details and photographs. Barney E. Land, 2720 South Hobart Blvd., Angeles, California.

LENSES FOR SALE

◆8x10 Plastigmat lens, Bausch & Lomb double anastigmat, 12" and 24" focus, Premo shutter, \$50. Steinheil ortho stigmatic, triple convertible, 10 lens, focus 10", 17" and 22", new in black end barrel, \$75.00. Address B.L.D., care Camera Craft, 425 Bush St., San Francisco, Calif.

The British Journal Photographic Almanac 1941

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(Continued from page 402)

Omag Filters are now available in Series V and VI Adapters to fit all standard Kodak Unishade Combinations, announces the Tess-United Co., Emmet Bldg., New York City. Prices remain the same as for the standard Omag discs. Series V Omag Filters \$2.50 each, Series VI \$3.00 each. Descriptive material is available from the above address.

A simple method for preserving permanently the crystal beauty of snowflakes has been revealed by Vincent J. Schaefer of the General Electric Research Laboratory in an article in the magazine "Science." By covering a snowflake with a drop of a solution of Formvar, a transparent plastic resin often used for electric insulation, and allowing the drop to dry, Mr. Schaefer found, a permanent cast of the snowflake crystal can be obtained. Though the film remaining is only about eight one hundred thousands of an inch in thickness, he reported, it preserves the characteristic hexagonal snowflake features in the most microscopic detail for later photographing or microscopic study.

Announcement has just been received of a new process known as photo sensitized metal now being manufactured by the Republic Engineering Products, Inc., with offices at 480 Lexington Ave., New York City. With this new photographic metal, copies can be made by the usual contact printing method or with an enlarger from ordinary drawing, print or negative. Aluminum is used as a base. The usual distortion, due to unequal expansion and contraction usually present in sensitized film, paper or tracing cloth is completely eliminated. Because of the elimination of any distortion, this photographic metal becomes an extremely valuable tool for speeding up production in those industries working on defense orders, as well as of real importance in most experimental work. The formula used by Republic in making the emulsion for coating the aluminum sheets is similar to a regular silver halide gelatine solution. This is quite different from the bichromate solution used by engravers and off-set printers which must be exposed within a couple of hours after sensitizing. The plates coated by Republic act in every way like any other silver halide gelatine emulsion and can be stored safely or months before exposure is made. The usual steps of development and fixation are followed as in ordinary film, using standard developers and fixatives. Because of its slow speed no special darkroom is necessary.

Their many friends in photographic circles will join with us in extending our congratulations to Mr. and Mrs. Philip Lasher on the birth of their son, Leonard Philip Lasher. Young Leonard was born on June 14th at the Children's Hospital in San Francisco, Calif., and weighed 8 pounds 12 1/2 ounces. It is rumored that he will soon be the West's most photographed baby, for Philip Lasher is the proprietor of the Western Movie Supply Co., of San Francisco and Los Angeles, manufacturers and distributors of photographic supplies.

Professional photographers will find the

(Continued on page 407)



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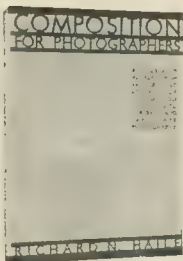
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LIBRARY**

(Continued from page 405)

new models of the Eddy Automatic Print Washers ideally suited to their needs. These compact, highly-efficient washers save in space, time and water and are completely rust-proof, as they are constructed of chemical-resistant metals. Eddy Washers are available in three sizes, 12, 16 or 22 inch diameters and in either leadclap copper or polished stainless steel construction. Solutions may be left in these new Eddy Washers twenty-four hours a day and they will give a life-time of efficient service. See them at your local Eastman Kodak Store or write the Eddy Washer Co., 209 Sixth St., Racine, Wis., for descriptive material.

George Murphy, Inc., 57 East 9th Street, in New York City, announces that due to increased sales and production, the firm has been able to reduce the price of the Carl Dial Retouching Set from \$2.75 to \$2.25. The Carl Dial Retouching outfit is a completely balanced set of chemicals for gradual reduction on photographic prints. With the Carl Dial system, shadows can be eliminated, highlights put in, and other effects achieved direct on paper prints.

Burleigh Brooks, Inc., New York City, announces substantial price reductions on Componar Enlarging Lenses, made by Jos. Schneider & Co. These popular four-element lenses, especially computed and corrected for precise enlarging, and mounted in fine focusing sleeves with iris diaphragm, now list as follows:

*5 cm. f3.5	\$20.00
7 1/2 cm. f3.5	24.00
*5 cm. f4.5	15.00
7 1/2 cm. f4.5	16.00
10 1/2 cm. f4.5	18.00
12 cm. f4.5	20.00
13 1/2 cm. f4.5	28.00

*With flange to fit Leica Enlarger, \$5.00 extra.

The new **Leudi exposure meter** is now made with Weston ratings. This compact meter is accurate and reliable—very easy to use—and is only 1" x 1 1/2" x 3/8" overall. It is featherweight, nothing to get out of order; jars and shocks do not affect it. The Leudi gives readings up to 1/1000 of a second and as slow as 25 minutes and lens openings from f1 to f32. The price of the new Leudi is only \$2.15 including case.

Booklets and Catalogs

A valuable treatise on enlarging—free, revised and increased to 44 pages; offered free to serious workers. This booklet is very interesting, meaty and full of helpful hints. The Enlarging Lens, Substitution Focusing, Correct Exposure Time, Tone Balance, Photo Montage and Formulae for Enlarging, etc., are included. The booklet may be obtained by writing to S. Drucker, Burke and James, Inc., 223 W. Madison St., Chicago, Ill.

A new, completely revised booklet on the **Defender Chromatone Process** has just been published by the Defender Photo Supply Co., Inc., Rochester, N. Y. The book incorporates directions for using the new, improved Chromatone Toners, as well as complete information on this popular color print

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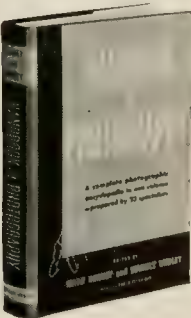
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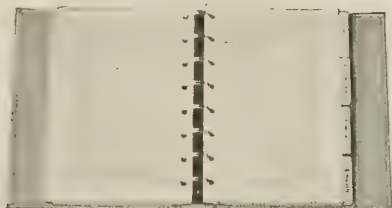
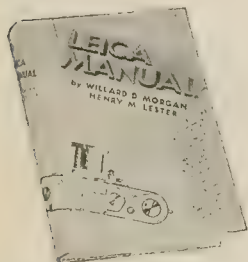


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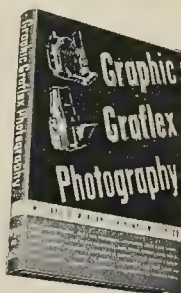
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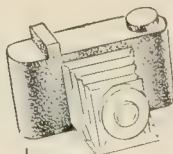
A free folder entitled "Speeding Up Film Processing With Infra-Red" has been announced by the Wabash Photolamp Corp., of Brooklyn, N. Y. The folder gives full directions of a carefully worked out procedure whereby a negative can be processed, dried, reprinted within fifteen minutes or less. Included are formulas for both a rapid fixing (2 minute) two-solution developer, and a rapid 1½ minute fixing bath. Also included is a new process of speed-drying finished negative with Wabash's recently introduced "sealed-silver" Birdseye Heat Lamps, whose penetrating infra-red heat conditions dry the negative from within in only 1½ to 2 minutes! Photographic illustrations show a simple method of setting up the heat lamps for speed-drying either cut or roll film. This folder should prove a handy reference in the darkroom. Write for your copy to Wabash Photolamp Corp., Brooklyn, N. Y.

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Agfa Ansco's latest publication—an 80-page, illustrated booklet titled "Choosing Film for Your Camera"—has just been issued and is now being distributed by photographic dealers throughout the country. Awarded after lengthy study of the needs of photographers, this booklet is packed with technical data and practical working information that will be of great value to both amateur and professional photographers. The first section of the booklet deals with general information on properties and applications of Agfa films, correct exposure and film processing. Much of this information is presented in convenient, full-page tabular form. Over thirty pages of technical data comprise the middle section, two full pages being devoted to each emulsion type. The data pages contain filter factors, exposure spectrograms, exposure tables, meter settings, developer recommendations, characteristic curves and helpful information on graininess, contrast, resolving power and other film characteristics. The third section of the new booklet is an appendix of general photographic information dealing mainly with more or less technical subjects such as characteristic curves, gamma, color sensitivity, color contrast, brightness range, etc. "Choosing Film for Your Camera" is available at regular photographic dealers at 25c per copy, or may be obtained direct from Agfa Ansco, Binghamton, New York.

A new 64-page Spring Clearance Sale catalog is just being published by Central Camera Co., 230 S. Wabash Ave., Chicago, Ill. Lists hundreds of bargains on all types of photographic equipment. Write the above address for a free copy.

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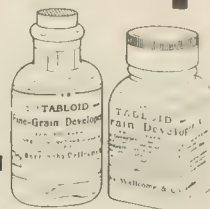


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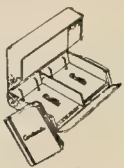
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Very truly yours,

J. C. LEUKHARDT

Washington, D. C.

Mr. Bond's four articles appeared in the March, April, May and June issues and are available in that form only. A fifth article on Kodachrome Exposures by Flash, will appear in the September issue.

However, Mr. Bond is now at work on a complete book on the technical and artistic aspects of Kodachrome Photography, which is scheduled for fall or early spring publication by Camera Craft Publishing Company. The book will be 8 x 10" in size, contain approximately 250 pages and will be fully illustrated in color.

Competition Comment

Sir:

Your magazine is one of my monthly favorites. It being a San Francisco publication, I naturally desire only a 100% rating from its many readers, therefore I am writing about something which has displeased me, and upon which I would like to state the opinions of some of your other readers: the choice of awards—this has very disturbed me.

For example, in your May issue—Fred Bond's "overflowing print washing equipment." Before reading the data alongside of the picture, I gazed at it, then stared at it, endeavoring to make out exactly what it represented. Wind ruffled jello with error—what kind of fruit was that supposed to be? No, try again. The ocean with a floating buoy... No.

It is a well known fact that fully a third of the world's population is not fully balanced mentally, so I could hardly expect very few would be exhibitors of photographs to the line, but a judge is thought of differently. When a man is chosen as a judge to sit on the bench to single out photographs for awards, I consider that a man should be one who knows to a certainty how to distinguish a good photograph from a poor one, and who is broad enough to give an unbiased and unwarped judgment in granting awards. In many instances your amateur showings rate away above your advanced class pictures. In your June issue—Vahle's picture, excellent—but look at the 2d, 3rd, 4th and 5th award pictures of the advanced class in the same issue—decidedly mediocre. From now on I shall endeavor every time: "Who are the judges?" I shall follow carefully the photo-

(Continued on page 423)

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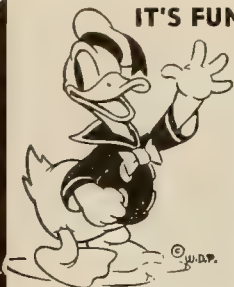
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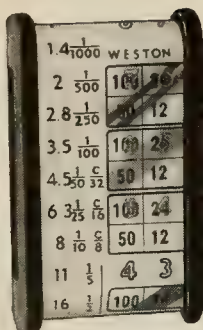
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(Continued from page 421)

graphic career of those gentlemen for my own future benefit. As the old Chinese proverb says, "From the roof of a house a melon may roll either of two ways." Could it be that this particular melon of a criticism will roll on my own head? I hope not.

My very best wishes to Camera Craft always—but oh, those judges!

Sincerely,

VIOLET COOKE.

Camera Craft welcomes the comment of our readers and will sum up the discussion in the next issue.—Ed.

Dear Sirs:

I have been browsing through the February, 1941, issue of Camera Craft and again viewed my pleasure in seeing a print on page 92, First Award Advanced Class. I enjoy your excellent criticisms and would like to submit some prints myself in the Amateur Class. I enjoy that portrait more and more every time I see it. Not perfect to judge, perhaps, but to me a really fine picture. Please convey my hearty compliments to Mr. William Saunders of San Francisco.

Sincerely,

RAGNAR PETERSON.

Oshtemo, Mich.

Club Notes

Forthcoming Exhibitions

2nd Annual North American Salon of Pictorial Photography. Address Grant Duggins, Chairman Salon Committee, Sierra Camera Club, 1426-54th St., Sacramento, California. Closing date August 8, 1941. Entry fee \$1.00, limit 4 prints. August 29 to September 7, 1941.

Second Annual Champlain Valley International Salon of Photography. Address Salon Secretary, c/o Robert Hull Fleming Museum, Burlington, Vermont. Closing date August 1, 1941. Entry fee \$1.00, limit 4 prints. August 24 to September 30, 1941.

Second Reading National Salon of Photography. Address Salon Committee: R. W. Berdter, Chairman, 637 Court Street, Reading, Pa. Closing date August 25, 1941. Entry fee \$1.00, limit 4 prints. September 14 to October 1, 1941.

Annual Northwest Photographic Salon of Western Washington Fair. Address Northwest Photographic Salon, Western Washington Fair Association, Puyallup, Wash. Closing date one week prior to opening of fair. Entry fee \$1.00, limit 4 prints. Third week in September.

The Inter-American Photographic Salon. Address Mary Eleanor Browning, Chairman, Inter-American Photographic Salon, Hotel Twenty-Four Hundred, Sixteenth St., Washington, D. C. Closing date September 1, 1941.

(Continued on page 425)

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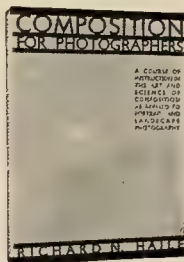
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(Continued from page 423)

entry fee \$1.00 for 4 prints, 25c each additional print. To be exhibited in museums and art institutions throughout South America.

The Thirty-second Annual London Salon of Photography. Address the Hon. Secretary, the London Salon of Photography, 26-27, Abchurch Lane, New Bond St., London W. 1, England. Closing date Sept. 3, 1941. Entry fee 5s. Prints from outside the British Isles must be sent unmounted. Sept. 13 to Oct. 11, 1941.

XVII Salon Internacional de Fotografia. Zaragoza, Spain. Address Secretario de la Sociedad Fotografia de Zaragoza, Plaza de las Cortes, 7, Zaragoza, Espana. Closing date Sept. 15, 1941. Entry fee \$1.00, limit 4 prints. American Exhibitors should send entry fees to the American Photographic Publishing Co., 353 Newbury St., Boston, Mass. Oct. 1 to Oct. 15, 1941.

This Annual Forest Festival International Photographic Salon. under the auspices of the Seneca Camera Club, Elkins, W. Va. Address Dr. B. I. Golden, Chairman Photographic Salon, Mountain State Forest Festival, Elkins, W. Va. Closing date Sept. 18, 1941. Entry fee \$1.00, limit 4 prints. Oct. 2 to Oct. 4, 1941.

Sixteenth Annual Salon of Photography Museum of Fine Arts of Houston. Address the Salon Jury, Museum of Fine Arts of Houston, Main and Montrose Blvds., Houston, Texas. Closing date Sept. 20, 1941. Entry fee \$1.00, limit 4 prints. Oct. 4 to 26, 1941.

The First Annual International Salon of Photography. under the auspices of the Victoria Photographic Association of Victoria, B. C., Canada. Address Alec Gamon, Corresponding Secretary, 469 Beach Drive, Victoria, B. C., Canada. Closing date Sept. 25, 1941. Entry fee \$1.00, limit 4 prints. October 1 to 31, 1941.

The 1941 International Salon of the Photographic Society of America. Address the Photographic Society of America, Museum of Science and Industry, A. F. Brunner, Salon Chairman, Chicago, Ill. Closing date Sept. 29, 1941. Entry fee \$1.00, limit 4 prints. October 24 to November 22, 1941.

The First Annual International Salon of Nature Photography. under the auspices of the Photographic Society of America. Address Nature Salon, Photographic Society of America, c/o Philadelphia Zoological Garden, 34th Street and Girard Ave., Philadelphia, Pa. Closing date Oct. 1, 1941. Entry fee \$1.00, limit 4 prints. The Museum of Science & Industry, October 24 to November 2, 1941.

The Second Pennsylvania International Salon of Pictorial Photography. Address Mrs. W. Ken McLaughlin, Salon Secretary, 63215 No. Front St., Harrisburg, Pa. Closing date Oct. 1, 1941. Entry fee \$1.00, limit 4 prints. Pennsylvania State Museum, October 16 to 27, 1941.

Third Annual Atlanta National Salon. Address Mrs. George Bird, Salon Secretary, 685 Brinkside Drive, Atlanta, Ga. Closing date October 1, 1941. Entry fee, \$1.00, limit 4 prints. October 12 to 31, 1941.

The New York Salon of Photography 1941. Address Janet Wilson, Salon Secretary, 121

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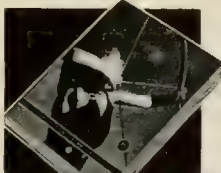
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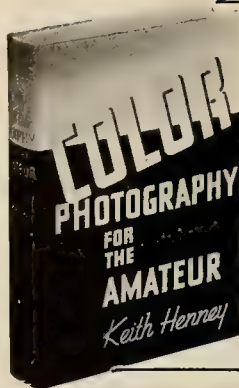
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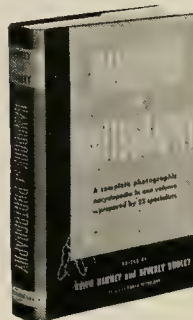
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Vest 68th St., New York City. Closing date October 3, 1941. November 2 to 30th, 1941.

The Sixth Annual Cedar Rapids Salon of Photography. Address Wes Panek, Salon Secretary, 1910 Mt. Vernon Ave., S. E., Cedar Rapids, Iowa. Closing date Oct. 4, 1941. Entry fee \$1.00, limit 4 prints. Nov. 1 to 11, 1941.

West Virginia Annual Salon of Photography. Address Salon Committee, 110-A McFarland Street, Charleston, West Virginia. Closing date October 11. Entry fee \$1.00, limit 4 prints. November 1 to 9, 1941.

Philadelphia International Salon of Photography. Address Mr. Hans Kaden, Architects Building, 17th & Sansom Sts., Philadelphia, Pa. Closing date October 15, 1941. Entry fee \$1.00, limit 4 prints. November 1 to 30, 1941.

The Second Petroleum Industry Photographic Salon, sponsored by the Photographic Society of America and the American Petroleum Institute. Address the Second Petroleum Photographic Salon, c/o American Petroleum Institute, 50 W. 50th St., New York, N. Y. Closing date Oct. 17, 1941. No entry fee, limit 4 prints. San Francisco, Calif., Nov. 1 to 7, 1941, Palace Hotel; Chicago, Ill., Nov. 22 to Dec. 15, 1941, Museum of Science & Industry; New York City, Dec. 9, 1941, to Jan. 9, 1942, New York Museum of Science & Industry.

The 9th Annual National Salon of Photography, under the auspices of the Yonkers Camera Club. Address Hubert L. Swapp, Director, 9th Annual National Salon, Yonkers Camera Club, Y. M. C. A., Yonkers, N. Y. Closing date October 7, 1941. Entry fee 1.00, limit 4 prints. Nov. 11 to 24, 1941.

Fifth Rhode Island National Salon of Photography. Address H. E. Hammond, Salon Chairman, 103 Westminster St., Providence, R. I. Closing date Oct. 25, 1941. Entry fee 1.00, limit 4 prints. Museum of Rhode Island School of Design, Nov. 16 to 30, 1941.

4th Annual Springfield International Salon of Photography. Address the Salon Secretary, c/o The George Walter Vincent Smith Art Gallery, Springfield, Mass. Entry fee 1.00, limit 4 prints. Closing date Dec. 6, 1941. George Walter Vincent Smith Art Gallery, Jan. 2 to 25th, 1942.

2nd International Salon of the Photographic Society of Southern California. Address Jack Powell, Salon Committee, 43 So. Los Robles Ave., Pasadena, Calif. Closing date Dec. 22, 1941. Entry fee \$1.00, limit 4 prints. Grace Nicholson Art Galleries, Jan. 5 to Feb. 1, 1942.

Club Activities

The Camera Guild. 4618 Euclid Ave., Cleveland, Ohio, an enthusiastic group of photographers, are constantly adding to their reputation for excellence in photography. At a recent Cleveland Art Show, member Dorothy Hazeltine won first prize in the portrait class, while Dick Hakanson won second award in the landscape class. Altogether, the club had twenty prints accepted or hanging in this exclusive show. The Camera Guild welcomes visitors at their

(Continued on page 429)

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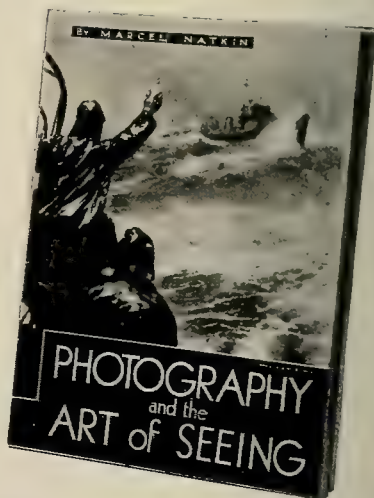
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(Continued from page 427)

reetings and guest cards may be obtained by telephoning Mabel Severance, Academy 4391, or Fred Vitullo, Randolph 4786.

The Miniature Camera Club of New York, 10 East 38th St., New York City, recently held their Annual Salon. More than 300 prints, all made from negatives $2\frac{1}{4} \times 3\frac{1}{4}$ " or smaller, were entered for the judging and 100 prints were selected for the Club's Traveling Salon.

The California Camera Club, 45 Polk St., San Francisco, Calif., plans an exciting program for the evening of July 29th. They will present a free-for-all, knock-down and drag-out discussion of all the isms, shisms and prejudices of photography. In this round table discussion, C. Stanton Loeber and A. D. Hull will oppose and disagree with Jack Garnett and Gilbert Macqueron. The public is invited, so put down this evening as a "must."

The Channel City Camera Club, of Santa Barbara, Calif., was host to the Southern California Council of Camera Clubs when that group held an outing on July 15th. Between 200 and 300 photographers attended and were conducted on a tour through the El Estero Ranch and Montecito, where picture possibilities abound.

The Cleveland Photographic Society, of Cleveland, Ohio are now trying out a new feature for their print nights, which, if found successful, will become a permanent addition. A round table discussion of the photographs submitted on these print nights, it is felt, will prove of real educational value. The new discussion group will be led by Paul Kozak, Jr.

In the latter part of 1942, Cleveland, Ohio will present its First International Salon of Photography. Preliminary arrangements have already been made and complete details are expected within a short time. The Salon will be under the auspices of the Camera Club Council of Northern Ohio and will be exhibited in the Cleveland Museum of Art.

The Alameda Photographic Society, of Alameda, Calif., have prepared identification badges for all members to aid the members in becoming better acquainted. Undoubtedly these badges will prove a boon to all those who "can remember the face, but not the name."

The Los Angeles Camera Club, of Los Angeles, Calif., have formed four special study groups to aid the members in their particular interests. These groups, Portrait, Pictive, Technic, and Paper Negative, will meet once each week for discussion and critical work on their subjects. The Club likes to form other groups as there is a demand for them.

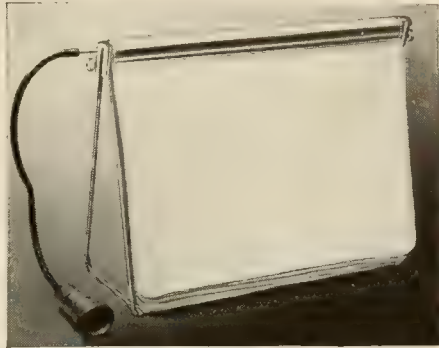
The North Penn Photographic Society, of Lansdale, Pa., celebrated its first birthday May 20th with a banquet at which fifty members and friends attended. The club now has established permanent quarters at 123 North Broad Street. Correspondence should be addressed to Clara Colburn, Corresponding Secretary, Box 144, Lansdale, Pa.

Contests

A San Francisco Harbor Day Photographic Contest is now being conducted under the

(Continued on page 473)

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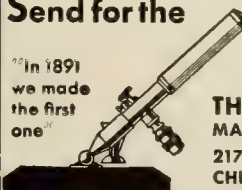
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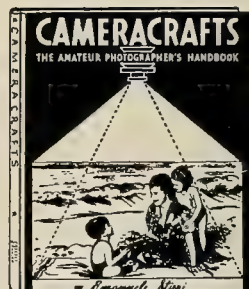
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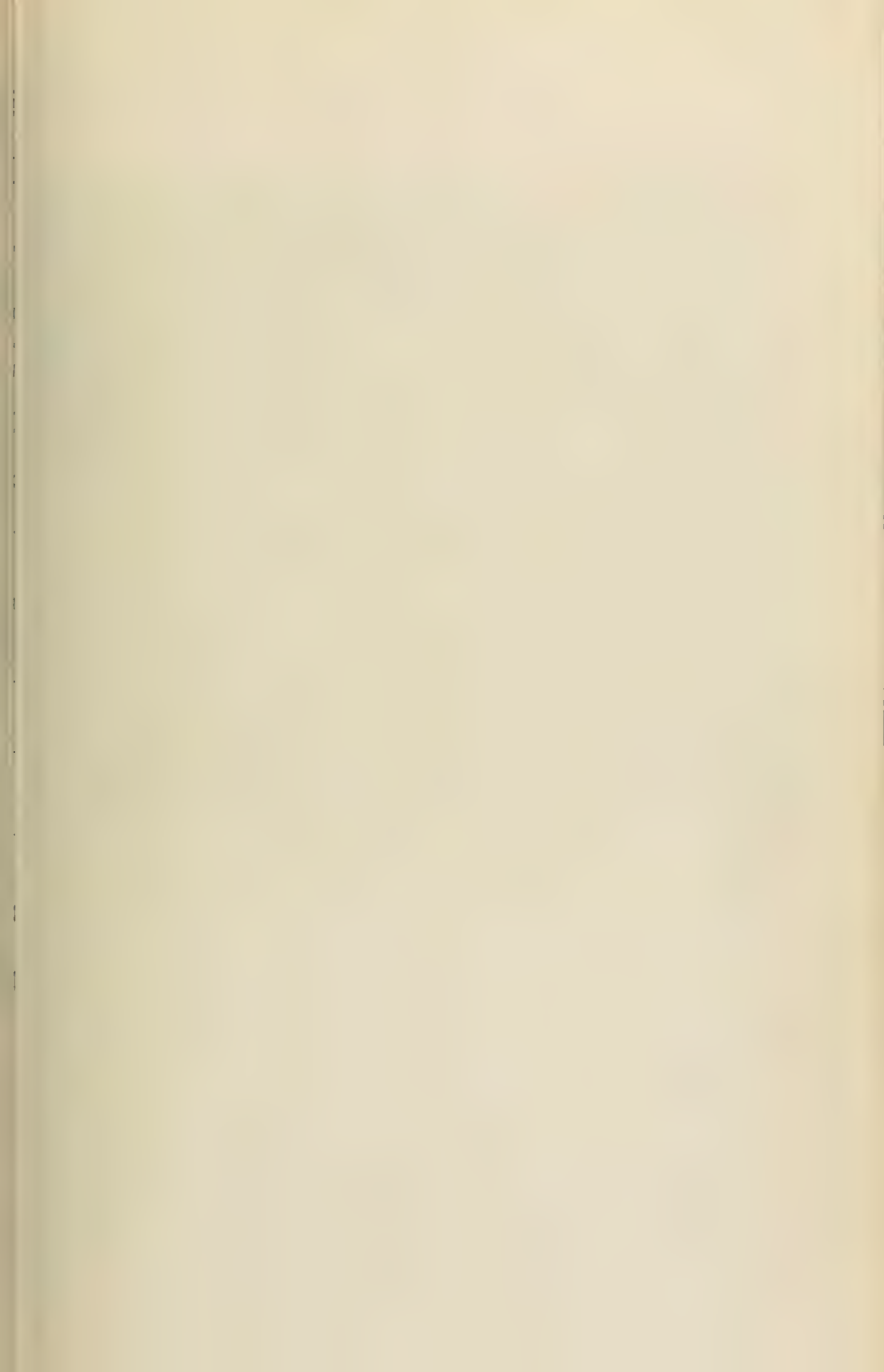
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"The Gossip"

Harold H. Higgins, Columbus, Ohio
28th Annual Pittsburgh Salon

Fidelity In Photography

John Bohne Ehrhardt

SOME time ago, this writer set forth his views on diffusion, in these pages. It was a rather longish article, you may remember, entitled, "Diffusion—When, Why, How," and it sincerely attempted to live up to the title. It didn't say that diffusion was intrinsically good, or sharp focus universally bad. It merely said, that some pictures should not be made at f.64, and it tried to rationalize the why and the how of soft focus. That miserable little piece should have caused no trouble at all.

Yet, see how my fame has preceded me: I vacationed in Pennsylvania, quite far from my home diggings. And the first photographer I met says, "Oh yes, I read your stuff in CAMERA CRAFT. You belong to the soft focus school, don't you?"

And I resented it. I don't belong to any school. In my opinion, there are techniques in photography, and gadgets on cameras, for just one purpose: To give the photographer a greater control over the powers of light, to lay ready to his hand, like the stops and manifolds of a great organ, to let him work for effect, to help him make others see. And though photography knows many degrees of definition, and many films and many chemicals and many kinds of paper from bromoil to glossy chloride, each has its place, each its definite service to photography and to the world. The photographer who limits himself to one technique is as idiotic as the musician piping incessantly in the same key.

Harking back to that first article, you may remember that we began by demonstrating the essential unity of all the arts and crafts preservative—painting, sculpture, literature, photography. You may also remember that we defined this single purpose of art in the words of Joseph Conrad, "to make you see." And from this analogy we reasoned that soft focus is



R. F. McGraw, Sierra Madre, Calif.

Invitational Exhibit, 2nd Annual Western Amateur Camera Conclave

sometimes good; it is quite as easy to demonstrate that sometimes soft focus is pitifully bad.

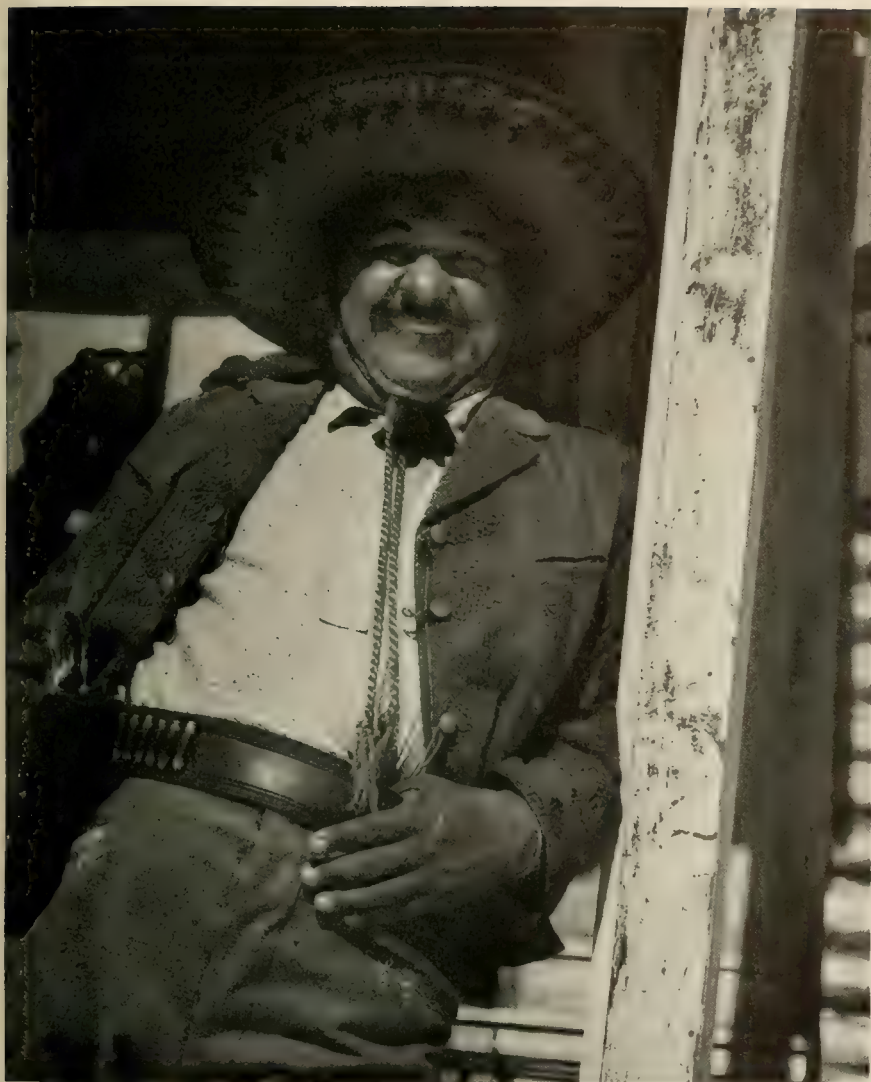
Now, just to be different, we shall limit ourselves entirely to demonstration; we shall compare the problem in one field of art to the same problem in another. This is better than endless theorizing and probably less horesome. Let's take the problem of focus in literature, the art nearest all of us, and compare it with the problem of focus in photography. And let's forget the scholastic hocus-pocus and talk straight American.

It may be twenty, thirty or forty years since last you read "Robinson Crusoe"; you have probably forgotten the century in which the action took place; you do not remember (neither do I) how many years Crusoe spent on Juan Fernandez. But you do remember how he lived on the island, what his shack looked like, how he made his goat-skin clothes. And you remember all the little trivia of his daily life. It is almost as if you had spent those years on Juan Fernandez with him.

And so, in imagination, you had. For Defoe unfolded all these minor details because his own imagination saw them, because it carried him in spirit to a desert island he had never seen and showed him a life he never knew. And he recited all these details to the reader, answering all questions before they could be asked. After a few pages, the reader's imagination climbs up beside Defoe's, and they are off together to see the wonderful isle.

And because of this conviction, because it seems to be the indisputable chronicle of years of adventure, because the reader sees things and happening, not print, "Robinson Crusoe" has never been off the best seller lists. It is an outstanding piece of English fiction, though the man who wrote it was no literary giant. He was a mean, snivelling hack from Grub Street, whose only surviving works are a few smutty bits of pornography, plus immortal Robinson.

But in those pages of "Robinson Crusoe" he makes you see; he uses



"Chris-Pin Martin"

Charles E. Kerlee, Hollywood, Calif.

Invitational Exhibit, 2nd Annual Western Amateur Camera Conclave



"Adobe Church, New Mexico"

Ansel Adams, San Francisco, Calif.

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sharp focus and he uses it remarkably well. In fact, it is reasonably safe to say that, in this one quality, Defoe has never been surpassed.

Literature, however, did not begin and end with Defoe, any more than photography begins and ends with Weston. There was Thackeray, a giant far above Defoe's stature, who could draw character with a few swift, bold strokes, and de Maupassant, a draftsman even swifter. Remember the passage in "The Necklace," where de Maupassant makes M. Loisel raise the cover of the tureen and murmur, "Ah, the good soup"? Four little words, but they tell us all we want to know about stupid, plodding Monsieur.

The essential difference between Defoe and the latter two is that Defoe told a story for the sake of telling a story, while Thackeray and de Maupassant wrote stories to illustrate character. We come away from "Robinson Crusoe" with no more knowledge of the hero than that he was as much a "fraidy cat as any other man would be in his position. But Becky Sharp and the Loisels are characters; you remember them long after their stories are forgotten.

It is the same in photography. We can photograph a group of trees simply as a record of the great goodness of God's Creation, or we can make them into a picture of stateliness symbolized by trees. In the former case, we shall want every leaf, every twig, every knurl of the trunk to show up crisply in the picture; in the latter, we must not let the trees triumph over the idea of stateliness. Different photographs of the same subject may be simple records of form, or pictures of mood and character, or just har-



"Health Survey"

Eliot Elisofon, New York, N. Y.

Invitational Exhibit, 2nd Annual Western Amateur Camera Conclave

monies of line and tone, deployed in an 11 x 14 space. And it is not for me, or for any other man, to say which is the higher form of art.

Yet I can remember a lecture by Paul Anderson, in which that gentleman described the work of Weston as "high class record photography"—rather condescending, I thought. It seems that not only Mr. Anderson, but quite a few other ranking photographers in eastern America, think the photographic narrative a greatly inferior form of art. And they have their rows of cackling geese behind them, to echo "aye" to everything they say.

Great Gods of Parnassus, was Homer any less than Edgar Guest? Wasn't narrative the earliest form of every art? Isn't it the commonest, best appreciated form today? If I can get no higher than Weston I shall be eminently satisfied.

And in the same lecture, Mr. Anderson suggests that Weston's prints can be duplicated by anyone with a $2\frac{1}{4} \times 3\frac{1}{4}$ camera and an enlarger capable of handling gaslight paper. And in doing so, Mr. Anderson has stepped on my toes, as well as on the master's. You see, a $2\frac{1}{4} \times 3\frac{1}{4}$ camera does the bulk of my press work and I make all of my enlargements on gaslight paper. Anyone not an utter idiot, can make an efficient chloride enlarger out of some scrap lumber, an f:4.5 lens, a pair of condensers and a photoflood. And the machine will deliver prints crisper than ordinary bromide enlargements; if you work carefully, you may get results equal to run-of-the-mill contact prints. But the simple switch to chloride paper will not produce prints equal to Weston's.

In other words, much as I love the miniature, I cannot concede that it can produce results precisely equal to those of a big view camera, all other considerations being standardized. I could write a book on the subject and tell you a thousand things you already know and another thousand you should know but don't. And after that I could shut up, take my cameras, and go out to learn several thousand more. It should be self-evident though, that the man who picks his film and developer, for their intrinsic balance, has a decided edge over the boy who must watch the factor of grain; it should be self-evident, too, that (all other considerations, focus, aberrations, distance from subject, etc., being equal) a twelve-inch lens picks up many times the detail of a four-inch lens. And finally, we have the little known fact that a five-diameter enlargement bears the same relationship to a contact print as the best photographic reproduction bears to its original. So, at the present state of photographic knowledge, it will require an 8 x 10 camera to translate Defoe into photography.

This may sound like an outright condemnation of the work of Barnack and the others, who labored so long to make the miniature a possibility. Actually it is not; it is merely a recognition of the physical handicaps inherent in miniature work. I cannot concede that any miniature, or any miniaturist, can produce prints precisely congruent to Weston's. However, I am willing to concede that when photographs are made for reproduction, or for private circulation, the miniature's works are amply good enough and the works of the intermediate cameras excellent. The only advantage the latter instruments can claim is a lesser strain on the operator. You can get away with more darkroom sloppiness, if your negatives are four by five, than you could if they were but the size of a postage stamp. The failure of



"Mt. Saint Elias, Alaska"

Bradford Washburn, Boston, Mass.

Invitational Exhibit, 2nd Annual Western Amateur Camera Conclave

the miniature, in every-day story-telling photography, is wholly and culpably due to inept handling.

Actually, quite good work can be done with cameras $2\frac{1}{4} \times 2\frac{1}{4}$ and larger. These cameras enter the field under a severe handicap: but they possess a definite advantage in their flexibility, an advantage which it would be unwise to overlook. To all practical purposes there is no great step between the best miniature and the best large-camera work in the field of story-telling, the miniature can give its big rival some stiff competition. At the same time, it is good to remember that, while the large camera does possess some definite advantages, future photographic progress may wipe these advantages out. There is still much work to be done in the field of fine-grain developers, in enlarger design, in the sensitizing of projection paper, above all in the design of emulsions for miniature use. The fact that there is still much to be done should serve as a spur to further experimentation.

However, it would hardly do to let the matter languish, while we are waiting for Binghamton and Rochester to catch up. Very much can be done with existing materials, if the technique is right: the one mechanical requisite is care, simple care, the only rule a true photographer recognizes. In fact, it might be a good idea to go back to beginner material, to the most fundamental but nevertheless very essential stuff. Re-read and practice

blindly. That means care in choice of film, care in exposure, loving care for the camera and, above all, care in processing. It means elaborate precautions against camera motion and the routine use of a small stop. Not f:64; take it as gospel that a three-inch lens should not be stopped below f:16, or a four-inch lens below f:22. If you must use a thirty-five millimeter job, don't stop below f:11.

And we could go on endlessly with cautions about enlarger vibration, about the economical use of negative area, about over-enlargement, about this, that and the other thing you already know. That is, you know but disregard. This is no particular indictment—every photographer of a few years' standing becomes lax in fundamentals as his knowledge of the finer points increases. And it usually requires a resounding failure to bring him back to his senses.

Let's suppose, instead, that all your equipment is in order, that you are using a condenser enlarger, that you have sacrificed the usual bromide paper and have taken to enlarging on chloride or at least on brilliant chlorobromide, and you are exercising super-human care, and you are getting prints which are quite as convincing as average 8 x 10 camera work. Probably you still aren't satisfied; your problems have multiplied so fast that you seem to have gone backward.

About this time a number of workers will decide that the miniature is just not suited to sharp focus work; I mean to photography a la Weston-Defoe, ultra-crisp and full of detail. And these boys will want to buy big view cameras right away, since they are convinced that all their troubles are traceable directly to the use of an enlarger. Better stick to the minnie; while you are learning, a big camera will only get in the way.

The things that are killing your pictures are troubles inherent in the medium. We forget too soon that the use of sharp focus places a tremendous burden upon the photographer, a burden so great that Weston takes on stature beside it. These problems exist whether one uses an enlarger or not; they are not darkroom troubles, nor yet physical entities. They are purely psychological problems called up by the nature of the medium.

In the first place, we must remember that the use of glossy paper makes defects doubly obvious. Not only pinholes and grain; those two are quite avoidable. The defects most immediately apparent are poor masking, wrong accenting and extraneous detail, the sort of things that go unnoticed in a small viewfinder. The brilliance of glossy paper, particularly glossy chloride paper, can be depended upon to show up defects in composition, as glaringly as any pinhole or scratch. And it can poke fun at a flat negative, whether the flatness is due to injudicious choice of subject or to bungling in the darkroom. In other words, making negatives for glossy paper puts a decided strain on the photographic eye.

Add to this the factor of over-all sharpness. You can't tone down troublesome areas by throwing them out of focus; you have to use care first in choosing the subject, second in choosing the angle at which to shoot, the distance and the focal length of the lens. And all this must be done with an eye to including detail.

It follows, therefore, that the intelligent use of sharp focus is far from being a refuge for mediocrity—rather, it is a blatant challenge to our

photographic maturity. I have written once in defense of soft focus, but I will write again and again in defense of Weston. I like the soft, misty prints of Misonne, and I like the evasive brilliance of the Danubian school. But in American scenes, I like the crispness that tells the whole story of the things I hold so dear.

I cannot think of any way to represent an old New England farm or church, except crisply; or any other way of picturing the great pregnant vistas of the West. The tiny diaphragm, the brilliant paper, the extra-sensitive care in the darkroom, these are best able to represent the things that are truly American. They can pick up the marks of hand tools on an old beam, or the multitude of exquisite details that make a tree a joy forever. And they can condemn or praise with equal justice without malice, without cant. If there can be such a thing as a national art then Weston's art is the American.

But one cannot say that his way is infallibly good or irrevocably bad. It is good as he has used it; in the hands of a lesser man it might have been as hideous as Thackeray speaking with the voice of Defoe. The final arbiter of these things is the response of the people, not the reactions of Mr. Anderson or other critics, but the response of the man in the fields and the man at the wheel of a truck. The man in the fields has no artistic inhibitions. If a picture talks to him, tells him something, makes him see, he likes it. Otherwise he will have nothing to do with it, though it be blessed by all the rules and all the pundits who make them. He can recognize the best of Weston as beautiful, and he can think a softly-limned print beautiful, too. Go to Hollywood, go to the place where the satisfaction of this simple man is a matter of prime concern. Any thousand feet of professional film will show you soft focus and sharp, high key and low, the use of every trick devised in a century of photography. And you know that this stuff pleases, pleases universally, and pleases infallibly, yet it is assembled without regard for the teachings of any photographic school.

And, for that reason, some will tell you that it is not art; that it is trash, because it presumes to cater to the tastes of the silent and the simple. My friends, the purpose of art is "to make you see," not to apply salve to the eyes. And the people, the quiet, simple men in the fields, are quick to recognize the right prescription when they find it. The works of Shakespeare and Rembrandt have survived because it pleased a sizeable portion of humanity to preserve them; had they appealed to one man, or to one group of men, or to one age, they would long since have perished from the earth.

So it is here. We know that Weston and the more intelligent of his followers are pleasing a sizeable portion of humanity, people with no interest in the academics of pictorial photography. And for that reason, I say that his work is good, that it deserves imitation, that it deserves the experimental follow-up that will bring it more easily into the range of the small camera. This is no dictum of my own; rather it is a clear mandate from the majority who know Weston and love his work, a mandate which every photographer in America, amateur and professional, would do well to heed. For the voice of the people is still the nearest thing to the voice of God.



*The Author at work**

Creative Problems In Picture Making

Manuel J. Tolegian

Part II. Mechanics of Picture Composition

IN this series of articles an attempt is made to elucidate various problems which continually confront the picture maker. The first article (May 1941 issue) discussed the importance of fully visualizing the picture in advance of exposure. It was illustrated with a landscape subject which, of course, is not amenable to actual physical adjustment by the photographer.

In this article we will be concerned with the sort of subject matter which must be assembled, arranged and posed by the photographer in its entirety. The principal emphasis will be placed on the problems involved in arranging a large group of figures and inanimate objects into a coherent, rhythmic composition.

Advantage is taken of the fact that the step by step, building up procedure of the painter makes illustrative analysis easier than is usually the case in photography. The compositional methods described here are those of the painter, rather than the photographer, but it should be plain that the only difference between the two is that the photographer must organize the actual physical subject matter whereas the painter is not faced with that necessity. One special photographic limitation might be mentioned in passing. The photographer would probably be well advised to organize his picture of similar subject matter in less depth due to the limitations of depth of field.

"Making Armenian Bread" presented the problem of organizing a large number of items into a unified and cohesive composition. Each item, person

* Manuel Tolegian has had exhibitions of his work in most of the major museums of the country, and held his fourth one-man show at the Associated American Artist's Gallery in New York, early this year. A comprehensive exhibition of his work will be shown at the Palace of the Legion of Honor, in San Francisco in October. As we go to press he has an exhibition of water-colors hanging in Gump's, Post St., San Francisco.



Examples of the photographs made to record characteristic action.

or object within the picture is strategically placed, and none of these parts could be left out without injury to the "story" content. On the other hand in order to avoid a cluttered and restless picture a very carefully knit rhythmic pattern had to be developed and this pattern guides the eye to places of heightened activity and to places of rest. A glance at the reproduction of the painting will show that the eye is led into the active groups first and then recedes, for rest, into the less active background.

Before we proceed into the structural analysis, I would like to explain the gathering of the items in the subject matter, their selection, and finally the organization of the data for use in the picture. Generally speaking, the picture because of its semi-technical nature required that any data I collected would have to be accurate and must truly illustrate the process used in the making of this unique bread. The characters, the various tools and utensils, the circular oven, etc., should all be shown with a high degree of verisimilitude. As you will note in the illustrated photographs, each presents a characteristic pose, costume and gesture for a particular part of the work. These items were carefully selected for their value in conveying the

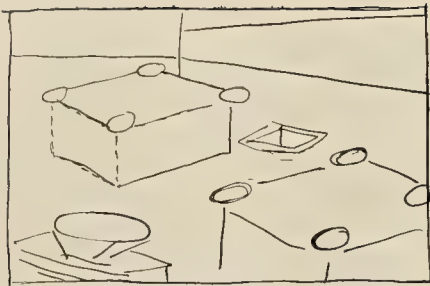


Figure 1.

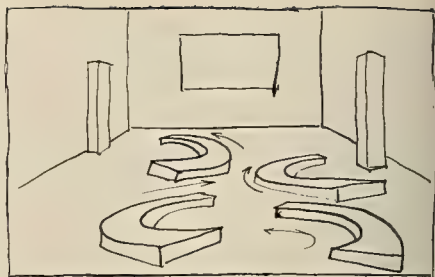


Figure 2.

meaning and method of the work. I found this group and several others on the east-side in Los Angeles. They were all neighbors and were preparing the bread communally for use during the winter. The activity of the women did not center in one place and so, in order to incorporate the various tasks and give a comprehensive summary of methods pictorially, I visited several places and made a series of fifty or sixty photographs. These visits at various intervals enabled me to take pictures which showed the important phases of the bread making and the characteristic gestures. Thus, the story-telling phase of the work was solved and the limitations offered by subject matter partially overcome.

When I finally resolved to put my experiences down in picture form, the first step was to make a small pencil sketch outlining the composition . . . much like the architect's first draft of a house for his client . . . such a rough draft is shown in Figure 1. This sketch settled two things immediately in my mind: the placement of the eight figures (eight figures, because I felt I needed that many to show the various tasks), and the viewpoint or perspective which would show these figures to best advantage. There is also a slight suggestion in the quick sketch of a *rhythmic pattern* as shown in the abstract, in Figure 2, which I developed from imagination. The principle of this rhythmic pattern is the *interlocking of forms*. This principle has been used for many centuries by leading artists and in its many ramifications by Peter Paul Rubens in particular. It is not a formula, nor is it an academic problem solver for all picture troubles; it is, however, a foundation upon which good pictures can be constructed.

It is important to realize that the artist must imaginatively conceive a rhythmic pattern which is appropriate to the subject matter and not try to jam it into an arbitrarily selected design. The pattern must be *yours*, and must grow out of your *feeling* for the unique requirements of the picture. So that there wouldn't be a serious departure which might lead to confusion the rhythmic picture pattern as shown in Figure 2 was made. The next step was to use my volumes (figures) in the degree of their importance both in the story and esthetically, to follow the original rhythmic pattern. The method used in the grouping of the larger areas and figures, as shown in Figure 2, was applied also to groups in the more detailed, smaller blocked-out figures, as shown in Figure 3. In other words, the large rhythm pattern acted as a framework in which the smaller blocked-out figures were



Figure 3.

made to fit. You will note that this abstract design already has some movement and that the individual figures interlock, one volume into the other, forming a rhythm chain. This interlocking of forms tends to create movement which in turn requires us to give it direction. You will also note that the blank areas are more or less evenly distributed. When animation is thus created by the rhythmic pattern of the blocked-out figures it then becomes necessary to confine these movements within the picture frame. Figure 4 is a simple illustration showing how the eye can be made to follow a three dimensional circular or elliptical movement within a picture frame. Figure 2 shows two groups of these interlocking elliptical rhythms. In Figure 3 these larger rhythm blocks are broken down to smaller ones, which of course are the abstracts of the shapes of the women at work: the smaller blocks are more closely knit and the rhythm takes on added momentum. In this manner a chain of rhythm blocks are formed, and the rhythm flows from one group to another and back again thus holding the eye within the confines of the picture. The considerable activity of the women in the work room area of the picture, after prolonged observation, might tire the eye, consequently the composition calls for a restful background. The vertical lines of the work room tend to counterbalance the

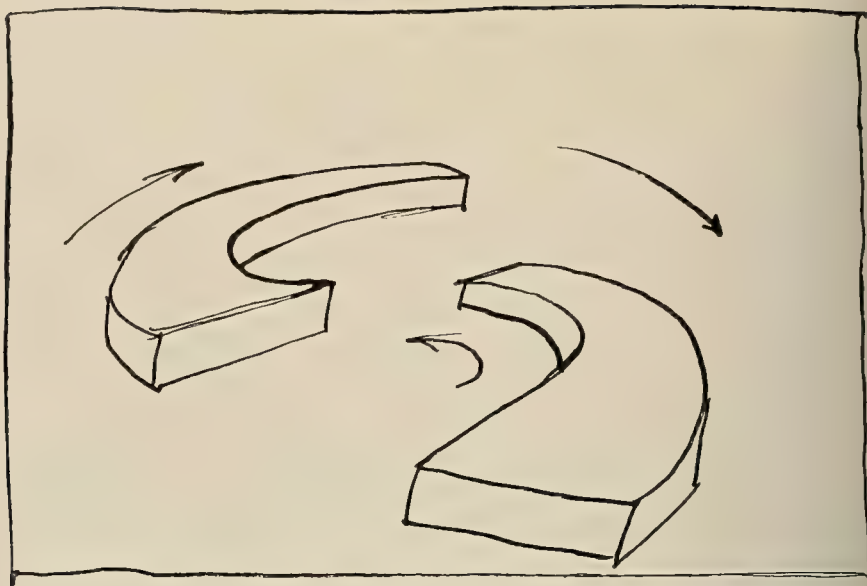


Figure 4.

intense activity of the women and this is also true of the parallel lines of the receding rows of vines in the background.

The amateur photographer's interest will center on the general compositional plan, as illustrated and described above. But we must be aware of the fact that such plans and theories are no more than *aids* to picture making. The real source of direct solution of creative problems must come through the gradual development of esthetic sensitivity through years of practice and observation. There is grave danger in placing too much reliance on rules and theories, but such things are helpful if kept in their proper perspective. It becomes necessary, therefore, for the amateur photographer to familiarize himself with the mechanics of picture making which have been used by the master painters. Their problems were much like ours and without exception, every new painting was an entirely new organizational problem.

The basic structure, then, in "Making Armenian Bread" was important in so far as the rhythmic plan created a special kind of animation. The figures were selected to show a typical movement and the resulting action was interlocked, one figure into the other until the eye justly satisfies its curiosity. The rotation movement might stimulate too much circular rhythm, so a more restful background was included. Note that the parallel lines of the vineyard background recede into the hills but the eye is led back by the tree on the left so that it returns to the circular cycle.

The fact that this picture was built upon a time tested basic pattern, does not make it esthetically fool-proof. A stage play may begin with a well defined plot, but unless all details of writing, casting, acting, setting,



Black and white reproduction of the painting "Making Armenian Bread," by Manuel J. Tolegian. Photographed by Arvil Parker.

lighting, etc., are in keeping with the plot and well carried out, the play will fail. Similarly a picture must also be a close-knit homogeneous thing.

It is plain however that the structure of the plot is an important basic element in the construction of a play, and the rhythmic pattern upon which a picture is built is fundamentally important in much the same way.

There are many factors which influence the construction of the basic picture pattern, but for the sake of simplicity I will close this article by listing the three considerations which seem most important to me.

1. In its larger aspects the pattern should set up a three dimensional flow of movement throughout the scene generally.
2. This movement should be echoed in the smaller details of the picture.
3. The pattern must be planned so that any movements which are set up are confined within the picture frame.

How It Was Done

Robert D. Vawter

THE making of a character study offers unlimited opportunities to the photographer to be truly creative. He is free to choose whatever character he will, and then portray it in any mood he sees fit. He has under full control lighting and costuming, and, if he chooses a model who gives him intelligent cooperation, he can also develop and bring out any expression he desires. Add to this the advantage of being able to take the pictures indoors at your convenience without regard to the vagaries of the weather and it would seem to represent the photographer's paradise.

Unfortunately, taking a character study is not quite as easy as it sounds. Careful planning, imagination, patience, ability to draw out your model, and persistence are all very necessary—as is, of course, the correct choice of the model. My favorite print, “The Hindu,” illustrates this very well. If I had had the picture completely visualized at the start, perhaps I could have now bragged that I only took one negative, but as I shall explain, the picture grew from a simple beginning through 24 negatives and 5 sittings, over as many weeks, before I got the final result that satisfied me.

People often ask where I got the inspiration for the picture, and I must admit that the idea first came to me when I saw my wife, Adelaide, with a colorful bath towel wrapped around her head, after a shampoo! That night we substituted a yellow print lunch cloth for the bath towel and after several attempts had it twisted into a passable turban. What to wear for a costume rather had us, as we don't have one of those convenient attics filled with all kinds of exciting just-what-we-need props. For our first attempt, then, my wife wore a pongee lounging robe, and if you will look at Figure 1 you will see that it is an excellent rendition, not of a Hindu, but of a pongee lounging robe! This illustrates very well the importance of “seeing” the finished print in your mind's eye before clicking the shutter. I was enthusiastic about the *type* of character I wanted to portray, but had not worked it out carefully enough. A character study must rise above a mere portrait of a person—it should be the embodiment of a type. In this



Figure 1.



Figure 2.

case I definitely wanted a portrayal of an Indian of high caste—mysterious, cold, imperious, colorful. Figure 1 fell down because, first, the gown certainly did not convey the impression of the wealth or pageantry of the East, and did not even establish any interesting curves or texture that would build a composition or please the eye. Secondly, the lighting is too flat, it leaves nothing to the imagination and creates no sense of mystery. A very disappointing result and quite the kind of picture that causes even the maker to smirk, “So what?”

In a few days, however, hope began springing once again in my bosom, and we tried another gown for our second sitting. At this point I would like to pass along one rare bit of advice to the beginning portrait photographer, and that is to keep the situation under complete control at all times. As an example, our sittings are conducted something like this: When, through tactful suggestions, I have my wife in a good pose, she begins wiggling her head and queries through her teeth, “Does my double chin show?” “Forget your chins,” I bawl, “and concentrate on the character you are portraying.” “All right, but couldn’t you help by talking it up like a Hollywood director?” So, I give my imagination full sway and build up to a tremendous finish—when Adelaide begins to giggle. “Well,” I exclaim, “What’s so funny?” “I’m sorry, dear,” she snickers, “But you look so cute acting up like that, I just simply couldn’t keep a straight face!” Well, as I have repeatedly said, a man always has his dignity to fall back on.

Figure 2 shows a slight improvement over the first print with the dark collar offering a line to lead your eye into the picture, but it was still merely a shot of my wife rigged up in a costume. I tried a light background for this shot, but saw right away that it nullified any sense of Oriental glamour or mystery. I decided that I urgently needed a more convincing gown, even if I had to go to the dire extreme of buying one. I was saved from that



Figure 3.



Figure 4.

folly by finding the perfect material in a hostess gown among the family heirlooms. It is a rich brocaded red-and-gold material and I promptly appropriated it. Figure 3 shows the vast improvement made possible by use of the right type of gown. The richness of the material helps to create the proper atmosphere.

I also borrowed an unusual necklace, made of old coins, which added a rather barbaric touch and gave a pleasing swing for the eye to follow. Realizing that a merely "pretty" shot could not convey the feeling I wanted, I tried for a severe expression, and felt that this third print was more satisfying. It expressed quite well the cruelty and indifference to human suffering that we connect with Oriental potentates (credit or censure Hollywood for that impression), but the pose seemed too cold and stiff. Also, the lighting was not quite right yet, and the skin appeared to be a blank surface, rather than something alive. A little daub of vaseline was needed down the bridge of the nose and high along the cheekbones to create highlights.

I did feel, however, that I was definitely on the right track and that, despite its flaws, Figure 3 transmitted a quality of Oriental mysticism and regality. So I tried again, and Figure 4 shows (are you still limping along with me?) that in trying to gain a sense of motion, and get away from the austerity of the previous pose, I lost my Hindu and had Adelaide again. I not only lost the graceful swing of the necklace, but I stumbled on some pretty bad lighting effects by bringing my auxiliary light, on the shadow side of the face, too close to the subject. The skin was well highlighted this time, but the nose shadow was most awkward. Was ever man so beset?

My shoulders were markedly sagging by now, but I threw out my hairy chest and thundered belligerently, "This time I'll get it, by daisy!" Fortunately Adelaide is a willing model and doesn't care how many times I ask her to pose, because she saves all the results in a large scrapbook, entitled,



"The Hindu"

Robert D. Lauder

Figure 5. The final version.

"Pasha Vawter's Scare-em Harem." By this time I could twist that lunch cloth into a turban quicker than you could say, "Bhai Jivanjis Thakord-war."

I decided to play up the strength of my wife's features with harsh, dramatic lighting, and succeeded so well in minimizing any mere feminine appeal that I have had people ask me if the model were a young man! I decided to keep the background quite dark to heighten the sense of the unknown. I also decided to use a darker lunch cloth for a turban that photographed more as a whole with the robe.

Figure 5 shows my final result. It expresses all that I hoped to express. The dignity of the ruler is evident through the proud pose and the imperiousness of the glance. The mystery of the Orient lurks in the dark shadows, and the play of light on the costuming intrigues the eyes with its richness of detail. The paradox of the East is suggested by the cold, enigmatic look of the eyes, contrasted with the full sensuousness of the mouth. Although the pose is a very direct one, a sense of movement is achieved by the counterbalancing areas of light and dark—the shadow side of the face is supported by a lighted base and vice versa.

The lighting of a character study can make or break its effectiveness. Had the same half of the face and gown been highlighted and the other half subdued, the picture would have appeared divided and quite static. As it is, the lighting produces a feeling of motion, swinging from the brightly lighted left side of the face down to the lower right portion of the picture, with a corresponding dark curve working up from the lower left to the right side of the face, where the shadowed eye is barely touched by the triangle of light.

Just as I am beginning to feel a little cocky, someone questions me about that final set-up. Perhaps you have imagined that I work in a well-ordered studio. Lovely thought, wasn't it? But, if you *must* know, my wife was sitting on the floor and the camera was balanced on the ironing board! I used a light wall for a background, and by moving the model closer to, or farther from it, secured the tonal value I wanted. The lighting set-up was very simple. A reflector spot was directed at a 45° angle from one side with a reflector flood lighting up the shadow side. Now, we *do* have a few chairs in the house, but Adelaide said she felt more Oriental sitting on the floor. While I was setting up the camera, she tried assuming various Yogi attitudes in order to get into the proper mental sphere, but discovered that, though her mind was willing, her bones didn't bend in the right places. She assured me, however, that without Yogi she could never have rendered the expression I caught.

Just as no expense was incurred, for costuming or lighting equipment, so the make-up was of the simplest kind. My wife has a smooth olive skin which presents no photographic problems, except for freckles, which photograph only too well. I have always maintained that it is highly inconsistent of my wife to have freckles, plus an olive complexion, but when I reproach her on the subject, she flounces her bustle and mews, "I think they give me a certain elan . . . besides there are always other models." What with the high price of models, er—I mean, naturally, I wouldn't think of using anyone but my wife.

We have found that, when using panchromatic film, a thin coating of suntan liquid powder foundation (five-and-dime store variety) serves admirably to cover the freckles. No powder was used. With an ordinary soft pencil, the line of the eyebrows was emphasized and drawn up, and an upslanting line drawn from the outer corner of the eyes. The turban was so adjusted that the band pulled up the outer ends of the eyebrows, to further increase the Oriental slant to the eyes. A dark lipstick was applied sparingly, plus a touch of vaseline to prevent the lips from appearing dry. For the last two shots, a little vaseline was daubed on the eyelids, along the bridge of the nose, and high along the cheekbones. The vaseline was smoothed in so as not to appear obvious. For the final sitting, the lips were made up fuller, to suggest indulgence of desires.

The camera used was a $3\frac{1}{4} \times 4\frac{1}{4}$ Graflex Series D, the film Tri X, exposure f.8 at 1/10. I printed the picture 16 x 20 because, to me, the large size was consistent with the majesty and compelling quality of the print. We have "The Hindu" mounted in our living room and, without a trace of false modesty, I freely say that we find it a very satisfactory print and one that "wears" well. I look at it and think, "Gee, I really must be getting good to take a picture like that." And, Adelaide looks at it and coos, "Bob, you're a WONderful photographer." Confidentially, I'm pretty sure that actually she is thinking, "Shades of Garbo, but Bob is lucky to have a magnificent actress like me for a wife." Well, I am too much of a gentleman to contradict the lady on either score.

Making A Blonde A Blonde

Hillary G. Bailey, F. R. P. S.

WE MIGHT just as well get one point settled in the first paragraph. The discussion which follows on making a blonde a blonde is strictly from a photographic standpoint. It has nothing to do with the chemical jobs of the cosmetologist. It has nothing to do with the over-used, definitely misunderstood, and faintly sickening overcoat of appeal called *glamour*. Furthermore, the wording cannot be stated to eliminate the repetition of the noun, blonde, to please those intent upon the pursuit of romance.

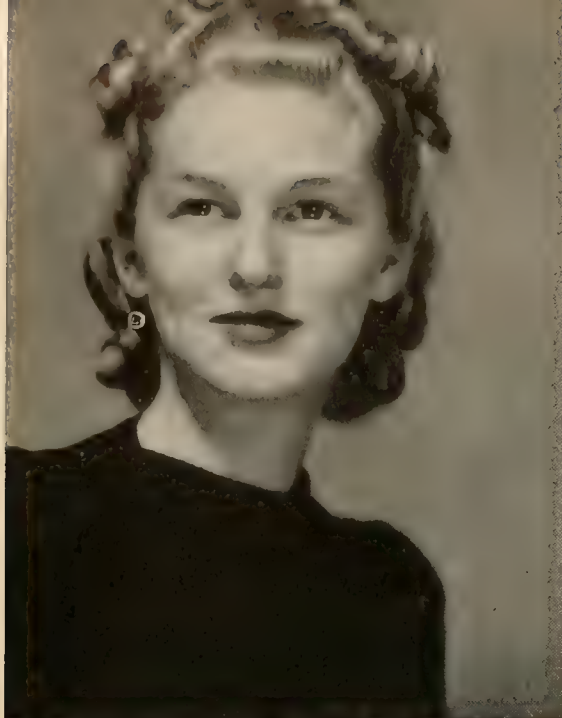


Figure 1.

Every manufacturer's representative has had the experience of having a well intentioned questioner say something like this.

"When are the manufacturers of photographic materials going to make an emulsion which will record blonde hair as light in tone (technically, tone is the wrong word. We are terribly confused with those words which in the end result in gradation) as it appears to the eye?"

The representative usually answers, "They do." Or he should, at least.

Whereupon the interrogator quite often will launch into an extensive recital of how he made nineteen or ninety snaps of so and so's tow headed youngster or slightly bleached sister and the hair came out as black as a blackout, or Oliver Berg's famous Black Cat. What is more, it seldom fails that whenever this question of how to make blonde hair look blonde comes up, the interrogator has just used the super-super-dot-dash film of the manufacturer's representative who is being interrogated at the time. (I never knew cameras could hold so many different makes of film at one time or that one film could be developed in so many different ways until I found myself involved in photographic symposiums and seminars.)

The answer to the blonde hair problem is that when you want blonde hair to look as blonde as you think it should, either your negatives are not properly exposed and developed, or *you are expecting an optical illusion.*

It is not expecting too much to assume that average technical perfection is within the command and practice of most camera users. We can be reasonably satisfied that most camera craftsmen are making their exposures within the latitude of the film and are developing the negatives to a suitable printing contrast and density. If so, then the matter of how a blonde should look is a problem of different appreciations of visual impressions.

Take Figure 1 in which the young lady pictured is unquestionably a



Figure 2.

blonde by nature, rather than by bottle. Taken collectively, her hair is not as light in appearance as her face, but if one strand at a time were stretched across her forehead, it would be astonishing how nearly the color of the hair and the color of her skin would be identical, especially under extremely diffused illumination to reduce the intensity of cast shadows. Still some have thought by looking at this portrait that her hair was quite dark and insisted as much with verbal emphasis.

If their insistency be given attention, it would seem that the film used did not record her as blonde as she is, and therefore, it is at fault even if it has been fully exposed and developed to satisfactory printing densities.

What is wrong?

Suppose we photograph a black fountain pen as in Figure 3. Now we know that the pen is perfectly black all over, yet down the center of the barrel for its full length, is a brilliant highlight so dense on the negative that all the remaining negative area would print to an indistinguishable density level before gradations would begin to appear in this particularly excessive highlight area. Do we say, therefore, that the film is incorrectly constructed because of this rendering which on casual thought is said by some to be untrue? Can we conclude that the white highlight is incorrect because it comes from a black object? Not at all, if we fully understand the circumstance and do not speak superficially.

Theoretically, it can be imagined that an illumination could be so broad and diffused that the width of the highlight area down the center of the pen would equal a large portion of the visible area. Actually, the highlight area is quite narrow and all attempts to broaden it result in *extra* action which states something about the angle of incident light equals the angle of reflected light with respect to the surface of a reflecting body. By considering this law from a highlight position standpoint, it may be said that the point of highest highlight from any reflective surface lies where a perpendicular from that surface will bisect the angle formed

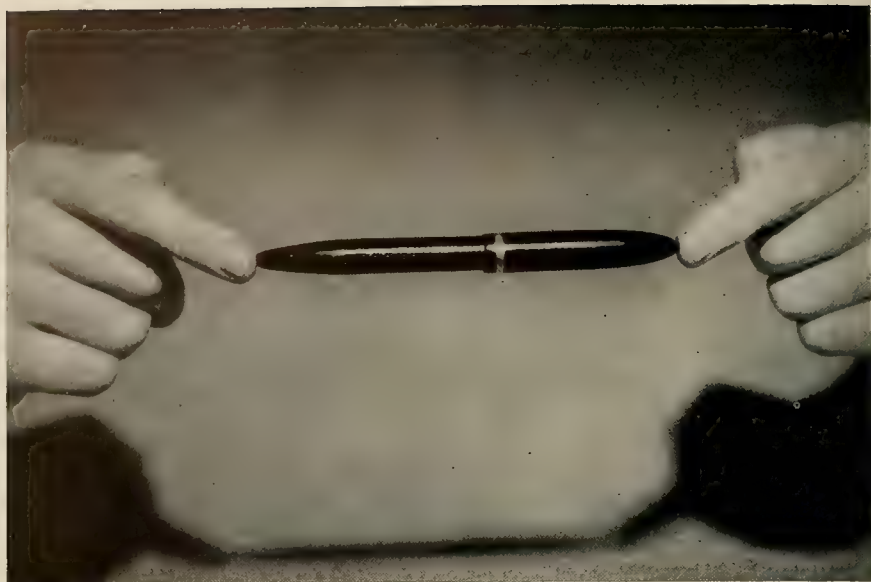


Figure 3.

by the incident and reflected ray. Furthermore, the size of the highlight is a factor resulting from the size of the light source, the degree of polish of the reflecting surface and the shape of the surface which in the cases under discussion are cylindrical.

If we consider Figure 4, we will note that an incident ray of light traveling from S which strikes the curved surface ABC at a right angle at B will be reflected right back over its original route of travel. However, another beam of light from S which strikes the surface ABC at C will be projected out toward R!

Therefore, most of the light which strikes a curved surface is scattered in all directions. Little of it would fall into a lens at S or R or any other one position.

Now, what has all of this to do with blondes? Have I lost my nominative? No, indeed.

Each of the hairs of a blonde's head is cylindrical in shape; at least, reasonably cylindrical, sufficiently so for photographic purposes. That means that each hair reflects light into the lens similar to the fountain pen. Down the highlight area of each hair, there is a reflection intensity that may even exceed the highlight intensity of the skin surface. But the sum of all the hair highlights does not equal the sum of the skin surface highlights; so that a greater amount of the incident light is reflected into the lens from the skin values than is reflected from the hair.

Therefore, blonde hair looks darker than it actually is, because the reflected light from it is scattered and it is not so much a matter of the

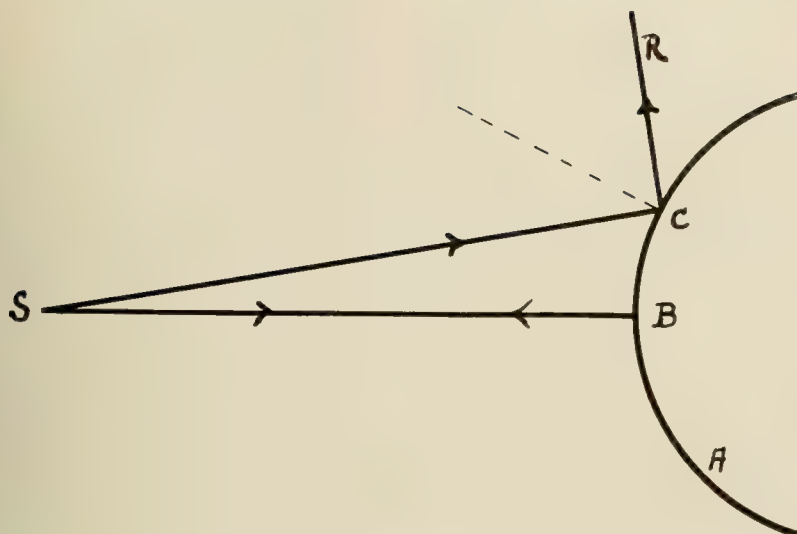


Figure 4.

film's response to color that causes a blonde to look like a brunette, as it is a matter of comparable surface reflections.

With some subjects, blonde hair will appear much lighter immediately after it has been washed, not so much because the hair was soiled but because the removal of the oil from the hair reduces the smoothness of the cylindrical surface. Therefore, the width of the highlight area is widened and reduced in intensity proportionately. Of course the light is scattered from a brunette's hair in the same manner, but the recorded result is expected and the fact unnoticed.

From this description of reflective action, it can be seen how so-called flat lighting will reflect more skin surface reflections into the lens than will the hair surfaces, because the angle of incidence and reflection is very small and acute from the skin surfaces and very obtuse from the hair. With this method of illumination, therefore, blonde hair usually appears still darker than by any other illumination practice.

What is a remedy? Well! There are many, the best of which is to add auxiliary illumination onto the hair that does not strike the face to exaggerate the intensity of the highlight areas on the hair or to increase their number so that by this mechanical means an optical illusion is created which will make a blonde look like a blonde. By this method, the degree of the bloneness may be controlled to suit the fancy and pleasure of the photographer. Figure 2 is an illustration.

Added illustrations could be made without limit, depending upon the nature of the subject matter, the flexibility of the lighting arrangement and the disposition of the picture maker. You have the privilege of adapting the factors as you please to make the blonde before your lens look as blonde as you intend.

Western Amateur Camera Conclave

George Allen Young

WHENEVER and wherever amateur photographers gather together there is always discussion about how swell it would be to hold a really large scale, full dress convention type meeting for amateur photographers. In view of this demand it is rather surprising that there have been so few meetings which fulfill the above description. The Western Amateur Camera Conclave has just completed its second annual meeting of this nature in Oakland, Calif., and its organization and conduct is described here in some detail in the belief that other groups in various sections of the country who would like to hold such meetings can profit by our experience.

Organization

In its beginnings the Conclave management amounted to nothing more than a self-appointed committee which received the endorsement of the camera clubs of the locality. The idea and original impetus came from Mr. Phil Ray, of the Oakland Chamber of Commerce.

Such an informal type of organization is almost a necessity in the beginning, unless the meeting is being put on by an established group, such as a regional camera club council. Steps are now being taken to establish a permanent organization for the Conclave. The principal officers, General Chairman, Program Chairman, Treasurer, etc., must of necessity be residents of the next host city. Supplementing the officers will be a rotating board of directors selected to bring about complete geographical representation in the area from which the meeting draws attendance.

The geographical area which the conclave is to embrace should be carefully selected. It should include at least two or three large cities so that a large attendance will be assured and so that the meeting can be moved about from one city to the other. From the start the management should make every effort to achieve the support and backing of all photographic groups in the area, and to so thoroughly organize the area that there will be no danger of competitive meetings starting up in nearby localities. This advice is not prompted by a dog



Figure 1. Left to right, standing—Dorothy Smith, popular dispenser of flashlamps and film during the floorshow; Jacquelyn Corker, Ruth Fulton, June Haas, Bette Brackett, and seated left to right—Beth Lesser, Roberta Falk, contestants for the title of Miss Photogenic.

Figure 2. Beth Lesser, voted Miss Photogenic for 1941, shows her gold cup to a portion of the throng which crowded the Hotel Leamington Bowl.

Figure 3. A small fortune in cameras formed the centerpiece for this table during the banquet.

Figure 4. Connie Bryant, the hard-working and very co-operative young model, in the popular Kodatron Speedlamp Studio, pauses for picture with a few of the several hundred photographers who availed themselves of the chance to make high-speed photographs.

in the manger attitude, but is based on the simple fact that the success of such meetings depends on large attendance.

Financing

This is the problem which has caused the abandonment of many ambitious plans for meetings of this kind. Ordinarily the amateurs' first thought in this connection is to sell exhibit space to the manufacturers. This idea is thoroughly impractical. The manufacturer can not discriminate between one sort of amateur meeting and another, and it is obviously impossible for him to support all of them. Furthermore, the cost of constructing, installing and maintaining such an exhibit is extremely high. Display material is bulky, and it must be carefully crated and shipped over long distances. Two or more high salaried men must be on hand to take care of the booth. It is plain, therefore, that the cost of the exhibit space, the only factor which the amateur usually considers, is but a drop in the bucket.

It is practical to solicit the support of the local dealers, since they are the ones which directly benefit from the increased photographic activity which meetings of this kind undoubtedly stimulate. Management should remember what has been said about the high cost of installing and maintaining a booth and should avoid placing too great a burden on the dealer.

It is desirable to have a good display of equipment and materials at the meeting. We found a considerable demand for such exhibits when we did not have them at the first Conclave.

At the second conclave the leading Oakland dealers put on a very fine equipment show but were not required to contribute financially.

The 2nd Annual Western Camera Conclave had only two sources of income. The Oakland Chamber of Commerce contributed very generously and it is only fair to say that it was this contribution which made the affair possible. They feel that the Conclave is a good investment because it brings people into the city and because of the publicity value of the large number of photographs which Conclavers make during their stay. Since the Los Angeles Chamber of Commerce is providing similar support for the next conclave, which is to be held in their city, it seems reasonable to suppose that Chambers of Commerce elsewhere will do likewise. The man to see in making such arrangements is the head of the Convention and Tourist Bureau. Such a tie-up is beneficial in many ways. It gives the conclave a credit standing so that purchases can be made before actual cash is available and the advice and guidance of the Convention and Tourist Bureau manager will prove invaluable.

This relationship points to one of the reasons why a conclave should embrace a fairly extensive geographical area and why it should move about from one city to another. The Chamber of Commerce support is based on out-of-town participation and the conclave must justify that support. Moving the conclave about helps greatly to build up such participation for many of those who enjoy it in one city will follow it to the next.

Our second source of income was the one dollar registration fee charged every one who attended all or part of the conclave. This is a very low charge for a meeting covering four nights and three days, but it was deliberately kept so for two reasons. First, to attract as large an attendance as possible and second, to forestall any feeling that the conclave was a commercial, money-making proposition. This fee covered everything except a \$1.50 charge for the



Figure 5. Fred Archer, Director of Photography at the Art Center School, demonstrates Portrait Lighting.

Figure 6. A glimpse of the Print Exhibit.

Figure 7. Each of the Model Studios contained two or more backgrounds. At left, Nina Bissell, lovely Hollywood Ziegfeld Girl, was an extremely popular model. At right, Beth Lesser, Miss Photogenic, 1941.

Figure 8. Cow Girl costumes and settings were furnished by Levi Strauss & Co. At left, Jacquelyn Corker; at right, Ruth Fulton.

banquet and it is important to make this fact clear in all advance publicity and to conscientiously stick to it. It is an important aspect of policy that those who attend should know exactly what the cost will be. We even went so far as to rule against the holding of a raffle, though the additional revenue could have been put to very good use.

Endless complication and embarrassment will be avoided if there is *absolutely no free list*. All committee members from the General Chairman on down paid for their admissions the same as anyone else. The only complimentary admissions went to speakers, otherwise unconnected with the conclave, and their wives.

Badges or ribbons such as are usually worn at conventions should be supplied to all registrants, and a uniformed guard should be stationed at the entrance to lecture halls to stop anyone not displaying a badge. If this is not done much needed revenue will be lost.

Below is an approximate cost sheet on the 2nd Annual Western Amateur
AUGUST, 1941

Conclave, which will give the reader some idea of the amounts of money which are needed for such an undertaking.

Print Exhibit, Cost of Backgrounds, etc.....	\$145.37
Print Exhibit Catalogue.....	91.41
Lecture Fees and Program Development Costs.....	192.50
Movie Film Rentals.....	57.00
Slide Projection Program.....	53.57
Publicity, Printing, etc.....	480.50
Model Studios	176.85
Electrical Service	112.50
Guards	68.00
Insurance on transparencies and prints.....	39.12
Floor Show	155.00
Total.....	\$1571.82

The above figures should not be taken too literally since they contain certain distortions brought about under the pressure of circumstances. The amount allocated to lecture fees and program development costs is very low. We originally budgeted \$500.00 for these items. No hotel rental is listed since we were fortunate enough to obtain the use of the Hotel Leamington free of charge. A number of items were obtained gratis. For example, W. P. Fuller & Co. loaned the glass for the print exhibit free of charge.

In our opinion the above figures represent a *minimum* budget for a properly conducted show of this size and scope.

The Program

The general policy of the Program Committee was to place all emphasis on instruction rather than on entertainment in the belief that those attending must receive some lasting benefit from the conclave if sustained interest was to be established. Reaction to the program seems to endorse that policy. The second conclave covered both still and motion picture photography, and since attendance at the motion picture parts of the program was good we believe that this is also good policy.

Space does not permit a detailed examination of the approximately forty-five separate items on the program, so we will have to speak of them collectively. A fairly complete listing of the program appeared in the June 1941 issue of this magazine so that those who desire more detail can find it there.

The program divides itself naturally into five major categories: The lectures and demonstrations; the Little Theater; the Model Studios; the Print Exhibits; and the Banquet and Floor Show.

Lectures and Demonstrations

Naturally these attempt to cover as many aspects of photography as possible. In its final form I believe that our program was weak in basic technical information. There should have been lectures on negative development, straight printing, and on the collocation of the various steps in the photographic process. These were planned for but for a variety of reasons did not appear on the final program. Incidentally, we would advise the planning of several substitute lectures



Fred Archer and model.



Edward H. Towler, General Chairman, presents Gold Cup to Beth Lesser, chosen Miss Photogenic for 1941.

to take care of last minute disappointments which are bound to occur in any program of this size.

The scheduling of the program requires careful thought and we believe we made one mistake in this respect. We had two lecture periods in the morning and two in the afternoon of each day, with three lectures going on simultaneously during each of these periods. Two lectures were held each night, one following the other. We believe that attendance would have been increased if more night meetings had been scheduled by holding three or more simultaneously as was done in the daytime.

It is advisable to have an intermission period between lectures of from fifteen minutes to one half hour, to permit of the setting up of equipment, to avoid restlessness on the part of the audience, and as a cushion for lectures which run a bit longer than expected.

We have found that it is very beneficial to urge all lecturers and demonstrators to make maximum possible use of slides in illustrating their talks. This is the only practical means of providing illustration for a large audience and it can be usefully applied regardless of the subject under discussion.

Little Theater

In the Little Theater we showed a total of nine hours of projected movies and four hours of projected Kodachrome transparencies. At the first conclave we showed Kodachrome in shadow boxes, but the construction of such boxes is extremely expensive and severely limits the number which can be shown. Consequently a projected program is far more practical and shows the transparencies to better advantage, particularly in the 35 mm. size. Many of the better workers in Kodachrome are using cut film sizes, particularly 4 x 5", so

if a representative program is to be obtained it is essential to have a projector which will take a full 4 x 5" transparency. We received a splendid response to our invitations asking for Kodachromes for showing. A generous number of slides were received from such outstanding workers as Ray Atkeson, Fred Bond, Horace Bristol, Imogen Cunningham, Ivan Dmitri, R. F. McGraw, Mike Roberts and Mason Weymouth. We also had a group of prize winning slides from the Kodak National and Kodak Camera Club National Salon, 1941, which were obtained through the courtesy of the Kodak Camera Club.

We did not try this at the conclave but the writer believes that interest would be added if a competent authority were on hand to offer brief constructive comment on the slides during projection.

Model Studios

The conclave had four model studios, under the direction of Meidel Applegate, which were fully equipped with lights, a variety of backgrounds and a bevy of lovely models. One of the studios was set aside for high speed photography with the Eastman Kodatron Speedlamp. These were open from 2 to 5 P.M. each day and proved exceedingly popular. The models were paid the standard posing wage and if finances permit I believe it would be advisable to have such studios functioning in the evening as well as in the daytime. Some fine backgrounds can be obtained from the display departments of local department stores.

The Print Exhibits

Print exhibits can be assembled in either of two ways. By means of an open show with selections by a jury or on a straight invitational basis. Any print chairman will find that there is a considerable demand for an open show to which those who attend the conclave can submit their work. Such a procedure has the undoubted advantage of stimulating interest by giving a large number a feeling of participation, but we must face the fact that it is not likely to produce the finest work. Our committee felt that if the full educational value of the Print Exhibit was to be realized, it must contain the finest photographs that we could lay hands on, and as a consequence of that policy the exhibit was collected on a purely invitational basis. This system under the direction of Donald Short, Jr. produced an exceptionally fine show.

There were 583 prints in the exhibit. Such a large number of prints require a vast amount of background material for hanging so it was important to obtain that at the lowest cost commensurate with good appearance. Mr. Short solved this problem admirably by using Insulex, a Sears-Roebuck product which comes in panels 4 x 8 ft. at a cost of approximately 3c a square foot and covering that with corrugated cardboard which comes in rolls 4 x 250 ft. The glass covered prints were supported by brass covered screws with an L-shaped projection and the vertical lines of the corrugations made vertical alignment of the prints quick and easy. Some idea of the appearance of the show can be obtained from Figure 6.

Banquet and Floor Show

The Banquet and Photogenic Floor Show which closed the meeting on Saturday night is designed for fun and fun alone. Acts must be selected for their photographic possibilities, and the stage must be lighted so that instantaneous Kodachrome exposures are practical.



Brett West, Los Angeles, Calif.

Invitational Exhibit, 2nd Annual Western Amateur Camera Conclave

Publicity

The selling of a meeting of this size is a big job and consequently it is we to have a publicity chairman who has had professional experience. But we do not think it is a good idea to simply hire an advertising agency to do the job. The person in charge must speak the photographic lingo if his letters and releases are to prove convincing to the photographic public. Mr. Hal Wiltermood did a fine job for the conclave, using all avenues of publicity, direct mail, magazine, newspaper and radio.

Much good work can be done through the camera clubs and it is a good idea to try to have each club appoint a conclave representative who will see to it that news of the conclave is brought before each meeting of the club. It is very important to place printed programs in the hands of all dealers for free distribution at the earliest possible moment. Many dealers did a fine ticket selling job for us.

We found the radio stations very cooperative in allotting us a surprising amount of free time in which to tell our story. Newspaper publicity must be put on a newsworthy angle. For example, our best newspaper breaks were based around the fact that we had a one-man show by Lawrence Kronquist of photographs of the new B-19 Bomber. One large metropolitan daily gave us

an 8 column spread using two photographs. The print committee feels that they scored something of a scoop by having these remarkably fine photographs displayed on the very day that the great ship took to the air for the first time.

Stage Management

This is an aspect of convention management which the amateur is very likely to overlook, with the result that the loudspeakers squeal or won't work at all; the right projector is in the wrong place and at the wrong time; there is no chalk for the blackboard; no projectionist for the projector; and nobody on hand to introduce the speaker. The only way to handle the vast amount of detail which comes under this heading is by a series of carefully delegated responsibilities. One man should be in charge of introductions, another responsible for projectionists, a third in charge of setting the stage in each lecture hall, etc., etc. Projectors should be set on solid raised platforms so that the projected image is square and these should be placed as near to the back of the hall as is practical. The person who made the introduction should be on hand to bring the meeting to a graceful close and to thank the speaker on behalf of the audience. A maximum of careful attention to detail in these respects will pay big dividends in smooth performance and in speakers who feel they have been decently taken care of, and who are, therefore, willing to come back again.

Mr. Clyde Woolridge did a wonderful job as stage manager for us and deserves a great deal of credit for the success of the conclave.

Reporting

Arrangements can be made with reporting agencies to take all lectures down on phonograph records and to subsequently transcribe these in mimeographed form. This is done at no cost to the conclave itself, the reporting agency obtaining its compensation from the sale of the reports. The report on the Western Amateur Camera Conclave contains more than 50,000 words and more than 75 pages. It can be obtained for one dollar postpaid, from the Teletype and Telecord Reporting Agency, 1440 Broadway, Oakland, Calif., and will be ready for mailing on July 24th.

And now for a brief paragraph of credits. Here are the men who made the conclave possible at no little cost of time and effort: Edward H. Towler, General Chairman; Phil Ray, Oakland Chamber of Commerce; George Allen Young, Program Chairman; Donald Short, Jr., Print Exhibits; Meidel Appleger, Models and Model Studios; Hal Wiltermood, Publicity, Promotion, Printing; Clyde Woolridge, Stage Management; Robert Vawter, Camera Club Contacts; Frank Killinger, Dealer Participation; L. C. Kenke, Special Construction; and Earl Rose, Radio Liaison. Many others, of course, did a lot of work, but remain nameless for lack of space.

It is our hope that this rather lengthy report will stimulate groups in other parts of the country to plan for meetings of this kind for we honestly feel that they can do a great deal to promote the advancement of photography.

Next Year

The Third Annual Western Amateur Camera Conclave will be held in Los Angeles, Calif., toward the latter part of June, 1942, under the auspices of the Southern California Council of Camera Clubs. Los Angeles promises to do a bang up job, and we feel sure that they will.



"Portrait"

Lola Stone, A.R.P.S., East Lansing, Mich.

Invitational Exhibit, 2nd Annual Western Amateur Camera Conclave

A Variation On The Emmermann Process

Dr. H. C. Atwood

THE article in the July CAMERA CRAFT, on the Emmermann process, had in it much that was strangely familiar, and makes me think that a process for printing in clouds, which I had thought original, may be the outgrowth of a now-forgotten reading about that process. At any rate, a double printing and double developing method gives such a good cloud insertion procedure as to be worth describing. It has, among other things, the same working pitfalls as the Emmermann process, and it also gives results not obtained in any other way. So, perhaps, an article now, following that other, will better fix both processes in the reader's mind.

This way of double printing for clouds takes a little longer than the usual masking method, but the blending between the two negatives is very much better and clouds can be put behind the open spaces of trees, quite hard to do with the common method. It resembles the Emmermann process, in putting a second print upon an already printed and developed image, but the object is not to soften a single image, but to smoothly blend into union, two images. Although the pitfalls are surprisingly alike, it will be better to include them in this brief outline, because of the difference in the end results desired.

The surest and best way to start, is to make a mock setup of the two negatives. Use a piece of plain paper, the size of the print, and on it frame and focus the landscape. Then, with a soft pencil, mark plainly not only the outline of the sky area, but also the outline of all other edges or masses you want the cloud pattern to reinforce. On that marked paper it is easy to space and size up your cloud negative. Mark the outline of these clouds and you have the pattern of both enlargements without any further measuring or keeping track of place or distances. In landscape work, where accurate register is not needed, the first print can be made on the dry paper, held flat in your usual way; although it can be printed wet, as in the Emmermann process, with equally good results. But as this article concerns negatives, which we consider good enough for the extra work of cloud printing, our first divergence comes in the choice of paper. Choose the grade of paper, which, with minimum exposure and full development, will give you the print you want.

Go back to the first negative and fit its enlargement to the pencil pattern. If you work this first printing dry, just make and develop it in the usual way, being sure not to overexpose. When developed, rinse well and place in a tray of water till needed. If the print is slipped face down

into the water, you are almost sure not to get oxidation stains. You will have plenty of time to change negatives and to size and focus the clouds on the penciled outline. If you want to be very accurate, put a thin cardboard under the paper to allow for the thickness of the tray bottom; this I seldom do as whatever softening there may be in the clouds looks all right to me. Turn the print face up and pour off the water, but do not drain completely, as the print had best be kept thoroughly soaked.

As was stated in the Emmermann article, a second printing on the developed but unfixed image will darken the middle tones more than the deep shadows and flatten the print. Since our paper contrast has not been raised to compensate for this, we must mask the printed image while printing in the clouds, but it is much easier to mask a developed image than a blank one. Moreover you can cloud-print right up to and into the already printed sky edge with very much less additional tone than if the sky edge had not been already developed.

Since the first image was masked and completely developed, it will darken so very little in the second development as to look richer, rather than darker. The second exposure may be timed as you wish, since you handle it as though making just the cloud print.

As to the advantages, disadvantages, and fun in all this: The July article says the sides of the regular size tray will throw bad reflections on the print, even though the tray be black (no need to try it, for that always works). If it is not convenient to use a larger tray, you must mask out all but the part of the negative you print, so that no light hits the tray sides. I have had no trouble with stains since using the routine given above. The exposure on wet chlorobromide is approximately one-half more than that for the dry paper.

For the work and fun of getting better results, we can make use of the old practice of pre-fogging plates, to increase their sensitivity. The printing paper has a latent period during the first impact of light, in which something happens, but no visible image is formed. This latent image can be made visible by flashing the paper with a small amount of plain light. If your landscape has distant hills or mountains which just fail to show with the minimum exposure, you will be surprised to see them appear, faint but clean, after the light from the cloud negative has fallen on that part of the paper. Edges against the sky can be kept to their proper tone, if you can shade somewhat in the first print and then let the cloud negative light build them up a little more, as you blend the two together. This edge blending can be done very much better when one of the images is already developed and on the paper before you. When the trees are open and you want to show a white cloud behind them, that can also be done if you can shade the tree area during part of the first exposure. Print the cloud negative straight over the trees so that the secondary exposure brings the trees to correct density. The contrast of the parts of the tree against the white clouds, will make them appear darker than they are, but if not yet dark enough, a carbon pencil will bring down their tone.

Cloud negatives should be thin and clean for any process of double printing and, with this process, a good cloud negative will give you superb results.

The Show Goes On - But How?

THE primary grades were a-twitter. The upper grades were smug with the satisfaction that comes of arithmetic postponed till an unbenevolent movie row. Four hundred eyes gazed widely at the vacant stage—at the ceiling—at the table in the center of the aisle—at the almost darkened windows. The simultaneously, at the double doors—opening.

The principal entered. Mr. Blank, model of an efficient administrator. From his right hand dangled a squarish black case. Under his left arm, he carried shiny round flat cans, and his left hand grasped a large black leather roll.

Like flower heads following the sun, the eyes followed his progress up the aisle. To the table, where the case and film tins were laid. Up onto the stage where the long black roll came apart, and became—after a brief struggle—movie screen.

To the ceiling ascended a sigh of blissful relief. It was going to be a movie show, and when Mr. Blank started to connect wires to the black box, just below the screen, even the stray doubters and pessimists began to believe in the promised sound and color.

Mr. Blank took his place beside the little table, and directed his intelligent gaze toward the projector. Some few minutes passed while things were attached to the projector, and reels were taken from the cans, and the second grade began to wiggle. The lights went out and a suppressed cheer ended in silence. Then the voice of Mr. Blank, "Not yet, please." The lights went on again.

More wiggling by second and third-graders in unison, until a nod from Mr. Blank resulted in lights out again. A soft "Ooooo" whisper followed the projection beam across the proscenium, and down, up, right, left, until finally it lay full on the screen.

Then a rainbow-tinted blur, and a loud gargling sound, with Mr. Blank fidgeting frantically with the projector until his audience was able to read quite clearly: BURMA" . . . "THROUGH BEAUTIFUL . . .

More fidgeting with the projector, while trees reassembled trunks and

slage into the positions nature and the photographer intended. And while the jangling noise continued.

More delay, while Mr. Blank rethreaded the projector, leaving out the first part of the film, which looked as if it had been accordion-pleated and then chewed. And still more fidgeting, while the rest of the blinds were drawn, and while the sound alternated between a thin squeak and a bass blare.

The aftermath? Either a faculty meeting, at which it was decided that movies, in their present stage of development, were unsuited to educational purposes; or Mr. Blank, like a really efficient administrator, efficiently kicking himself all the way home for having violated the rules of movie projection. If the show goes on, it must go smoothly. Auditorium, film, equipment, projectionist, must be ready. No one can consider himself ready until he has tested his picture and sound in the place in which he intends to use it.

Fiascoes similar to that of the imaginary school showing are growing less common, now that sixteen millimeter sound projectors are included in progressive salesman's kits—and in many communities are a part of standard schoolroom equipment. But they do occur, and invariably it's because the simplest rules have been ignored, which means, that the projectionist either hasn't studied his instructions, or simply has no sense of showmanship, and doesn't care.

Setting up for a sound show is easier if a definite routine is followed. First, keep your gadgets together at the projector position. Parts, accessories, spare cords, and film should be left there, and only the speaker and its cord should be taken to the screen. Use the speaker cover (if it is removable) as a tray to hold spare lamps, cords, and so on.

Secondly, always connect up the speaker cord at both ends before connecting the power supply. On some machines, failure to do this may cause trouble in the amplifier.

Third, turn on the amplifier and warm it up, to make sure it is working. A slight hissing in the loudspeaker usually indicates that all is well, but a more positive check is to flick a card in the light beam of the sound system (with volume control turned to a mid point). A plop in the speaker will result, if all connections are correct.

Fourth, remove the projection lens and clean the glass surfaces, especially the back one, which often becomes coated with oil spray, and then center the picture on the screen, preferably with a test film. (New projectors come with a practice reel which should be saved for testing.) If a practice reel is not available, run the first part of the film to be shown, making note at the same time of the position of the volume control for normal reproduction. It goes without saying that all this should be done before the audience arrives, otherwise it would be as bad as a pianist spending concert time with practice scales.

When you're ready for the show, thread the projector and check it carefully by advancing the film by the hand knob, making sure that all loops are maintained and that there is no mutilation of film occurring on a mis-threaded sprocket.

If the sound print to be run has the "Academy Leader," identified by decreasing numbers on single frames occurring at sixteen frame intervals, run the film ahead until the number "3" is past the picture gate. This leader, which is common on prints which are rented from libraries, is a carryover from the 35mm theater practice and remains with the 16mm reduction print as a matter

of course. In theater practice, these numbers are to assist the projectionist in making a smooth change-over from one projector to the other, but in 16mm they more often make a very disturbing start to a show, for as the numbers flash on the screen they are both hard on the eyes and disconcerting to the mind. The number "3" is the last that shows on the leader, indicating that there are three feet (35mm footage) before the actual picture starts. In 16mm form this three feet reduces to about 14 inches of film, which allows enough time for the machine to get up to speed before the first title and music come into the respective gates.

Just before starting the real show, be sure to check and see that the amplifier has been turned on and is warmed up ready to work. Then turn the volume control to normal position and start the projector. If there is a separate lamp switch, it is best to start the projector motor and then turn on the projector lamp.

As the film starts to run, check the film being wound onto the take-up reel by letting the film slide gently through the thumb and forefinger. Any damage to the perforations can be easily detected and the machine stopped before a great deal of film is lost.

At the end of the show, don't fail to turn off the projection lamp before the film leaves the gate, for a "white screen" is the most obvious mark of a sloppy projectionist. Again comparing it to a concert, it is as though the pianist ends his concert with a great flourish and hits a sour last chord.

The general routine has been used in the operation of six sets of projection equipment, belonging to a large industrial concern, and has proved to be very successful. In seven years there has been a negligible amount of film damage and over 98% perfect shows. This, in spite of the fact that the projectors are shipped around the country to the company's representatives, who, for the most part, have never seen a motion picture projector close-up before.

Don't think you know it all, if you have run another make of projector. One of the worst cases of film damage occurred when an operator who owned a silent projector, failed to read the instructions on the routine to be followed and proceeded to give the show, threading all the reels incorrectly.

If you're still wondering whence the chewed film and gargling in the school room projector, it was due, undoubtedly, to improper threading.

Film libraries report two prevalent situations. The first is a constant source of annoyance and expense to the film library and takes the form of film mutilation. It is a significant fact that there is more than ten times the mutilation on the first fifty feet of a sound print, in library service, as compared to the rest of the footage. This shows definitely that there has been, all too often, just plain incorrect threading, which causes the first few feet of a print to be mangled before the operator notices anything wrong.

The other situation arises from complaints on the part of the customer that the sound on the film rented is of very poor quality. When the library knows the print to be of good quality, it is obvious that there is something wrong with the projector, the owner not realizing that his machine or his operator is at fault. Many times the two problems come together—the library will receive a print completely mutilated, with a complaint from the renter that the sound was of very poor quality. The real facts are that the film had been incorrectly threaded and, as a consequence, the sound was not good. Instead of investigating to see if there was some reason for the poor sound, traceable

to projector, the operator merely concluded that the film was poor, and let it continue throughout the reel and thus ruin the film.

With the great increase in the use of Kodachrome sound duplicates, this matter of film mutilation becomes of very critical importance. A 1600-foot Kodachrome duplicate costs about \$200 to make, and it can be completely ruined in one trip through the best projector, if the threading is done incorrectly. It is vital, therefore, that users of sound projectors know how film damage can occur and how to guard against that difficulty.

Manufacturers of the equipment have simplified apparatus which, in the large size theater machines, requires an operator of considerable skill and experience. The present 16mm sound projector can be operated successfully by anyone who puts a little time into reading the instruction book. However, like any other piece of machinery with somewhat more complication than an oxcart, films require a little preparation and forethought.

Club Notes

(Continued from page 429)

sponsorship of the San Francisco Junior Chamber of Commerce, 333 Pine St. Thirty dollars in cash prizes will be awarded for the best pictures of San Francisco's harbor. The contest is open to amateurs only and the closing date is July 26th. Send prints to the above address.

The Second Annual Camp Fire Girls Photographic Contest has been announced by the Camp Fire Girls, Inc., 88 Lexington Ave., New York, N.Y. Pictures should depict some phase of the theme "America, The Beautiful." Both local and national contests will be held and details may be obtained from your local photographic dealer. Local contests will be completed by October first.

The Shasta Dam Photo Contest has been announced by the California State Chamber of Commerce. \$100.00 in cash or merchandise will be awarded to the best prints of Shasta Dam, its workmen or surroundings. The contest closes Sept. 12th. All pictures are to be black and white, on glossy paper, size 5 x 7 or larger. Name and address of contestant, description of view, and names of recognizable persons are to be on captions attached. Pictures showing recognizable persons must be accompanied by written release for publicity or advertising use. Contestants will have free run of the Vista House overlooking the dam. Other arrangements are being worked out. Report to the Vista House for further details. Pictures submitted to remain the property of the Travel and Recreation Committee of the California State Chamber of Commerce. No pictures to be returned. Photos may be submitted to the Travel and Recreation Committee at any of the following offices of the California State Chamber of Commerce: 350 Bush Street, San Francisco; Hotel Senator, Sacramento; Occidental Hotel Bldg., Santa Rosa; T. W. Patterson Bldg., Fresno; Chamber of Commerce Bldg., Stockton; 950 Wilshire Blvd., Los Angeles.

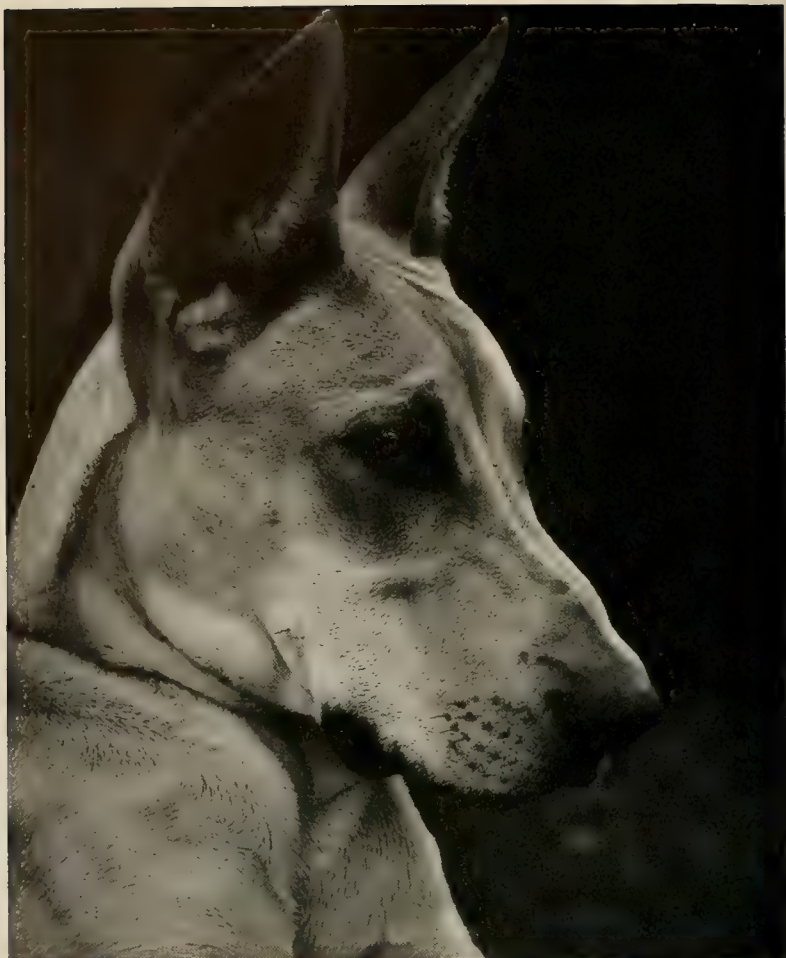
The Museum of Modern Art, 11 West 53 Street, New York City, announces a competi-

tion for amateur and professional photographers in the United States and its dependencies, to begin immediately and to close at midnight, August 15, 1941. Entries postmarked after that date will not be accepted. The name of the competition is "Image of Freedom"; any photograph which interprets the American spirit is eligible. Purchase prizes of \$25 each will be given for the 100 prints selected as best in the competition. Any competitor has an opportunity to win five of these prizes, inasmuch as five prints from a single photographer may be selected as among the 100 best. On October 29 the Museum will open an exhibition of the 100 prize-winning photographs. This exhibition will later be shown in towns and cities throughout the country. The competition is open to any photographer, amateur or professional, upon payment of a \$1.00 entry fee, to cover handling costs. Each competitor may submit from one to five photographs, which may have been taken at any time. These must be unmounted, but may be on any type of paper (preferably double weight), glossy or mat finish, black-and-white or toned. Color photographs are not eligible. The largest acceptable dimension is 14 inches; the smallest, 5 inches. The judging will be anonymous, as photographs must be submitted with numbered entry blank. Entry blanks and rules may be obtained by writing to: Department of Photography, The Museum of Modern Art, 11 West 53 Street, New York City.

Announcements

The Second Petroleum Industry Photographic Salon, sponsored by The Photographic Society of America and The American Petroleum Institute, has just been announced. Last day for receiving prints is October 17, 1941. The salon is open to anyone and there is no entry fee. The salon

(Continued on page 481)



"The Baron"

Fred S. Herrington, A.R.P.S., San Francisco, Calif.

First Award—Advanced Class

★ The expression of dignified alertness which Mr. Herrington has caught so successfully is very effective pictorially. This quality plus the clean cut contours, the fine modeling and the excellent rendering of fur textures under the soft lighting all combine to give us the impression that we are looking at a real champion. The placing of an animal head in the picture space is always a difficult problem. The up-thrust ears are usually essential to good expression, but they have a tendency to push the eyes too low. It is seldom practical to compensate for this by adding space at the base because the forelegs and chest appear awkward and inadequate. On the whole we think that Mr. Herrington has worked out about as nice a spacing as is possible. However, if more space could be added to the base without bringing about the awkwardness mentioned we would like to see about one half inch added to the top, on the 14 x 17" print, and at least twice that much below. This would raise the eyes slightly in the picture space and get away from the feeling that the tip of the ear is almost touching the top of the print.

Data: $3\frac{1}{4} \times 4\frac{1}{4}$ " Graflex Series D; $6\frac{1}{4}$ " Zeiss Tessar; 1/90th sec., at F:6.3, on Kodak Panatomic X in Kodak DK-76; outdoors in shade; 14 x 17" print on Kodak Kodabromide, in Kodak D-72.

Second Award

Advanced Class

Mr. Shigeta has made maximum use of the decorative qualities in the tall tenuous tree trunks, while the short tonal scale and the high key further emphasizes those same qualities. His picture has much of the feeling of pure decoration that we habitually associate with a Japanese print. It has become quite out of fashion to say that a photograph "looks like" a picture in any other medium and we quite agree with those who hold that a photograph should look like a photograph and nothing else. There remains a certain confusion in the use of these terms. A person will often say that a photograph looks like this or that when he really means something like the thought expressed in our second sentence. He doesn't mean that the photograph actually appears to be a Japanese print, or even that the photographer has attempted to imitate such a thing. He means that the photograph displays the sort of sensitivity to decorative values that we find best expressed in Japanese prints. This is quite a different thing and does not in the least infer that the picture departs from photographic qualities. We could wish that a smaller stop had been used so that at least all of the blossoms in the upper part of the picture would be sharp.

Data: 11½ x 16" print.



"Spring Song"

H. K. Shigeta,

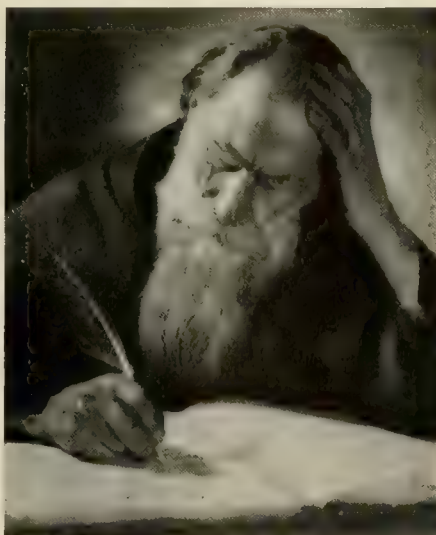
Chicago, Ill.

Third Award

Advanced Class

The pose and the lighting plan are nicely worked out here and the subject is a most interesting one. We agree with the artist's feeling at some breaking up of the background tone, desirable, in order to avoid monotony and so to give relief to the head and variation to the contours by bringing lighter values into play about the head. We believe, however, that such tonal variations should be achieved by subtle gradations and that they should not take on definite form as is the case with the light patch on the right of the hand which supports the head. This patch almost suggests the appearance of a bit of ectoplasm, and because of its peculiar shape and sharp edges it definitely catches the eye to the disadvantage of the picture. The book has been very skillfully placed in the picture space. Notice how important it is to show the far edge of the book in order to give it form and to bring in some dark tone at the base of the picture so that there is a solid base for the composition to rest upon.

Data: 13 x 16" print from a paper negative.



"Time Marches On"

Dr. Max Thorek, F.R.P.S., Hon. P.S.A.,

Chicago, Ill.

*"Bubbles"*

Richard Rundle,
San Francisco, Calif.

♦ Mr. Rundle has achieved a high degree of skill in the Mortensen techniques of lighting, exposure, development, and print finishing which produce the attractive qualities of so many of his prints. This is a simple little subject, exactly the sort of thing which people love to make snapshots of. But notice how very much better this picture is compared to the average snapshot. The high quality of the print itself is a point of distinction. There are no distracting items, no awkward passages in the pose, no straining for effect. But the one touch which is most effective of all, most revealing of the understanding direction of the photographer, is the bringing of the braid of hair around to the front so that it echoes the curve of the arm. Just imagine the picture with the braid hanging down the back and the importance of its present position will be instantly appreciated.

Data: $3\frac{1}{4} \times 4\frac{1}{4}$ " Series D Graflex; Kodak Anastigmat; Triple S Pan in Agfa 17M; 11×14 "

print on Defender Velour I, in Agfa 135; Mortensen Plastic Light with one 500 W. lamp on subject and another on background. Mortensen Powder and Abrasion Tone.

*"Eastside"*

Stuart Weber,
Altadena, Calif.

♦ This picture quite obviously owes its effectiveness to the completely natural and very appealing expressions on the faces of the two little girls. The two figures are nicely grouped so that the foremost one easily dominates and so that the secondary figure offers an interesting variation of attitude. This picture quite obviously had to be a grab shot and as such it displays the defects of setting and posing that are so very difficult to eliminate when the photographer does not have the opportunity to carefully arrange all details. The railing of the staircase running out of the head of the secondary figure is quite distracting, and the hand supporting the head of the secondary figure is seen from such a bad angle that it looks more like a foot. Furthermore, it is so bright in tone that it catches the eye unduly and it pops up out of nowhere so that the mind must make a conscious effort to explain the presence of this object. Careful dodging in of the two items mentioned would help but would not completely eliminate the difficulty.

Data: 16×20 " print.



"Happy Valley"

Virginia Muldavin, San Francisco, Calif.

First Award—Amateur Class

This picture conveys quite strongly the mysterious emotional enchantment which we often experience toward the close of a quiet peaceful afternoon in a beautiful countryside. That quality is enhanced by well rendered aerial perspective and by a composition which carries the eye through the picture space in just the sort of movement which is most appropriate to a landscape subject. The eye moves in along the straight lines in the foreground, swings to the left and flows the ravine in a graceful swinging movement which progressively loses force as it approaches the top of the print. The eye is released without being carried out of the picture. If the imagination remains free to carry on and as a result there is no feeling of an abrupt termination of the movement. Two factors lead us to believe that the picture can be slightly improved by trimming. As things are the picture is divided rather too equally between cultivated field and the area above. There is something of a dead space in the upper right so that as far as the upper half of the picture is concerned the active area is all to the left of center. Observe that this condition creates an equal division of areas on the horizontal dimension in the upper half of the picture. We can reduce the amount of dead space in the upper right and get away from the equal vertical division by trimming about three inches from the base and about three and one half inches from the right on the 13 x 16" print. Notice that such trimming places the highlighted tree, which is now in the center of the print in the middle distance, and the circular shaped tree furthestest to the left, in strong positions in the trimmed picture scene and in balance with respect to each other. As a consequence they act as points of emphasis which reinforce the movement more successfully than was previously the case. Care must be taken not to trim too much for if that is done the force of the movement in the foreground would be lost.

Data: $3\frac{1}{4} \times 4\frac{1}{4}$ " Series D Graflex; $6\frac{3}{8}$ " Kodak Anastigmat; 1/25th sec. at F:22, on Agfa Ipan. 6:15 P. M. in June. 13 x 16" print on Defender Velour Black DL-2, in Defender 55D; fixed in Barstone.



Walter Zernechal,
Cleveland, Ohio

Second Award

Amateur Class

♦ Mr. Zernechal has done a remarkably fine job of recording the atmospheric qualities of this intriguing scene. The water quality in particular is beautifully caught and the subtle gradation and detail to be found there is exceedingly interesting. The dark masses are well balanced with respect to each other so the composition holds together quite successfully. The sun is kept sufficiently under control so that it does not hog the picture. In short, a lovely thing, photographed with understanding and competence.

Data: $2\frac{1}{4} \times 3\frac{1}{4}$ " Speed Graphic
11 x 14" print on Kodak Kodabromide No. 1.



Viva McDonald,
San Francisco, Calif.

Third Award

Amateur Class

♦ It seems to us that this picture has been well planned so that attention is concentrated on the action most successfully. The low camera angle exaggerates the action slightly by giving the arm a thrusting quality that would not otherwise be so apparent. The slight foreshortening of the head and the minimum of detail in the eyes are other factors which help to direct attention to the action by diminishing the attention value of the face as such. The freckles have been brought up strongly through the use of orthochromatic film and they do much to create the impression that we are looking at a vigorous youngster who loves the outdoors, in short a real American boy. This picture speaks with authority, saying: "When a good husky boy like this bites an apple it is really bit."

Data: $2\frac{1}{4} \times 3\frac{1}{4}$ " Graflex Series B; 1/200 sec. at F:8, on Agfa S.S. Plenachrome, in D-7 11 x 14" print on Defender Velour Black D in Defender 55D; toned with Agfa Direct Sepia

Fourth Award

Amateur Class

There is something peculiarly appealing about a well photographed high key subject. Here the lighting is nicely adjusted to build character and texture into the cloth, while the contrasting textures of necklace and book are also well preserved. This picture entirely escapes the too common failing of high key pictures, washed-out highlights and general lack of tonal separation. Such an effect is obtained when the subject is approached from the wrong end. A subject which is not truly high key is photographed with full exposure, development is restricted and a weak print is made so that no dark tones will appear. A successful high key print can never be obtained in this way. We must begin with a truly high key subject. Since such a subject presents a short scale of tones we must give a minimum exposure and full development to the negative. If that is done a normal print will give the effect desired.

Data: 9 x 12 cm. Nagel; F:4.5 Schneider lens; Kodak Super XX film in Kodak D-76; by photo-floods and a small spotlight; 11 x 14" print on Kodabromide G-3, in Adurol.



"Peace"

*Alvina Baltrukonis,
Cleveland, Ohio*

Fifth Award

Amateur Class

This picture is made interesting and dramatic by the way the light bark of the tree catches the angular lighting and by the contrasting of this against the dark sky. Our general feeling is that the subject matter is unnecessarily crowded into the foreground. It is certainly possible to imagine a version of this theme in which the tree and house would be considerably smaller in the picture space and with these elements set back into the scene so that we would not get the feeling that they are dumped almost into our laps, so to speak. In all probability a more distant camera position was impractical in this case because of distracting objects which would then appear in the foreground, but that unfortunate condition does not invalidate the general criticism.

Data: 13½ x 16½" print.



"East Texas Evening"

*Dr. T. H. Cheavens,
Dallas, Texas*

Monthly Competitions

Scoring for Club Trophy Cups

The following won points for their respective clubs in the Advanced Class. Richard Rundle, for the California Camera Club; H. K. Shigeta and Dr. Max Thorek, for the Fort Dearborn Camera Club; and Stuart Weber for the Pasadena "Y" Camera Club.

The following won points for their respective clubs in the Amateur Class. Virginia Muldavin and Viva McDonald, for the California Camera Club; Walter Zerneck, for the Cleveland Photographic Society; Dr. T. H. Cheavens, for the Dallas Pictorialists; and Alvina Baltrukonis for the Women's Photographic Society of Cleveland.

Fred S. Herrington has no club affiliation.

Contributing Clubs

Aluminum Camera Club (New Kensington, Pa.)	Marin Camera Club (Calif.)
Alameda Photographic Society (Alameda, Calif.)	Oklahoma Camera Club (Oklahoma City Okla.)
California Camera Club (San Francisco)	Pasadena Camera Club (Calif.)
Cleveland Photographic Society (Cleveland, Ohio)	Photographic Society of Hong Kong (China)
Dallas Pictorialists (Dallas, Texas)	Photographic Society of San Francisco (Calif.)
Detroit Camera Club (Detroit, Mich.)	Rothschild Camera Clinic (Los Angeles, Calif.)
Fort Dearborn Camera Club (Chicago, Ill.)	San Francisco Camera Clique (Calif.)
Kamera Kranks (Durham, Calif.)	Sigma Phi Nothing (Sacramento, Calif.)
Manhattan Camera Club (Manhattan, N. Y.)	Tulare Camera Club (Tulare, Calif.)

Standing of Clubs

Large Clubs—Advanced Class

Fort Dearborn Camera Club.....	27
Pasadena "Y" Camera Club.....	18
California Camera Club.....	17

Small Clubs—Advanced Class

Photographic Society of Hong Kong.....	20
Yellow Springs Camera Club.....	5
E.P.I.C. Pool	4
Rothschild Camera Clinic.....	4
Alameda Photographic Society.....	2
Aremac Camera Club.....	1
Kamera Kranks	1

Large Clubs—Amateur Class

Cleveland Photographic Society.....	2
Detroit Camera Club.....	1
Miniature Camera Club of New York.....	1
California Camera Club.....	1
Photographic Society of San Francisco.....	1

Small Clubs—Amateur Class

Camera Club of Maryland.....	0
Kamera Kranks	0
Dallas Pictorialists	0
Tulare Camera Club.....	0
Greenville Photographic Society.....	0
Women's Photographic Society of Cleveland	0

SUMMARY OF COMPETITION RULES

1. Open to all, amateur or professional, club member or non-club member.
2. Closing date 1st of each month.
3. Indicate class of entry (Advanced or Amateur) and club membership (if any) on back of *each* print. Technical data should accompany each print.
4. No entry fees or blanks required.
5. Stamps must be enclosed for return of prints.
6. Full explanation will be sent free on request or may be seen on page 47 of January 1941 issue.

(Continued from page 473)

will be exhibited in San Francisco, Chicago and New York, during November and December, 1941. Entry blanks and rules may be obtained from F. Quellmalz, Jr., Salon Director, Second Petroleum Industry Photographic Salon, Room 2040, 50 West 50th St., New York, N. Y.

The Museum of Modern Art Film Library is now presenting Part I of a cycle of 300 films, tracing the history and development of the motion picture industry from 1895 to 1940. The films are being shown daily at 4:00 p.m. in the Museum Auditorium, 11 W. 53rd St., New York, N.Y. Part I will cover the Silent Era and will continue daily through October 31st. For a complete list of film titles and showing dates, write or call at the Modern Museum of Art, 11 W. 53rd St., New York, N.Y.

The 28th Annual Mesquakie Indian Pow Wow will be held Aug. 14th to 17th, 1941, on the reservation, 3 miles west of Tama, Iowa, on Lincoln Highway, U. S. 30. Participating Indians will be dressed in their native costumes and photographers are invited to bring their cameras. There will be no restrictions and you can take pictures to your heart's content.

Plans for the Seventh Annual Convention of the Photographic Society of America, to be held in Chicago at the Stevens Hotel, October 24th to 26th, inclusive, are nearing completion, Chairman H. J. Johnson has announced. Among the features of the gathering, which will be attended by amateurs and many of the leading photographers of the United States, will be the opening of the PSA International Salon, and the First Annual PSA Nature Salon, at the Rosenwald Museum of Science and Industry. There will also be an exhibit at the Stevens of 100 photographs from government agencies, 50 medical pictures from the Biological Association, a display of color transparencies and an invitational salon of color prints. Highlights among the papers to be presented will be one by P. H. Oelmann on "Photographing the Nude," a technical paper on some phase of color from the Kodak Research Lab, a discussion by Ralph Creer of the use of photography in medicine, and a debate between a well-known pictorialist and a documentarian. Information on the Convention or the Salons may be obtained from the Secretary of the PSA at 10 Park Avenue, New York City.

New Clubs

There has currently been formed in Rochester, "The Photographic City," an association of all Rochester Camera Clubs. It will be known as The Rochester Council of Camera Clubs. This new organization will consist of two representatives from each of the following active Camera Clubs in the city: Amateur Photographers Club, Graflex Camera Club, Genessee Camera Club; Hawkeye Camera Club, J.Y.M.A. Camera Club, Kodak Camera Club, Photo-Tech Camera Club, Raytar Camera Club, and Rochester Camera Club. It will assume active responsibility for the Rochester International Salon of Photography, which has been increasing in scope each year, and it will

direct its energies toward a coordination of Camera Club activities that promises to broaden even further the extent of programs and the bringing to Rochester of outstanding speakers for the benefit of Rochester's thousands of active camera club members. The newly elected officers of the Rochester Council of Camera Clubs consists of E. W. DeBisschop of the Graflex Camera Club, chairman; John Mulder of the Kodak Camera Club, vice-chairman; and Harvey Morris of the Amateur Photographers Club, secretary and treasurer. The first order of business of the new Rochester Council of Camera Clubs was the election of a new executive committee for the 1942 Rochester International Salon of Photography. Plans already under way for that event indicate that it will go even farther than the record-breaking 1941 Salon.

On June 11th, the Washington Council of Camera Clubs was organized at a meeting held in Olympia, Wash. The council has a charter membership of 15 clubs in Western Washington. The officers, elected for one year at the initial meeting, were: Ray B. Pollard, Seattle Photographic Society, president; Carl Pflugmacher, Cowlitz Camera Association, vice-president; James R. Stanford, secretary; and Bob Jackson, Sheldon Camera Club, treasurer. The governing body of the Council will be the board of directors, which, in addition to the officers, includes: John D. McLauchlan, Seattle Photographic Society; Carl Westman, Olympia Camera Club; Frank Guidetti, Olympic Camera Club of Bremerton; M. F. Swallow, Grays Harbor Camera Club; and Howard Rankin, Cowlitz Camera Association. The activities of the Council will include a regular system of print exchanges between the member clubs, a speakers' bureau, a print criticism department, the sponsorship of inter-club visits, outings, etc., obtaining and advertising traveling salons for clubs in various sections of the council, and the publication of a monthly bulletin. The Council is anxious to correspond with other councils throughout the country and will appreciate being placed on their mailing lists. Address correspondence to James R. Stanford, secretary, The Washington Council of Camera Clubs, 2509 Columbia Ave., Olympia, Wash.

Exhibitions

A large audience of photographic fans and leaders in the art and photographic world, attended the preview recently of "In the Image of America," at the New York Museum of Science and Industry in Rockefeller Center. "In the Image of America" is a Photographic Society of America exhibition which has been staged at the Museum in collaboration with the Farm Security Administration of the U.S. Department of Agriculture. The show, which consists of a display of 50 mural photographic panels is now open to the public and will continue at the Museum throughout the summer. The 50 mural panels comprise 200 photographs dealing with all phases of rural activity in America, not only on the farms, plantations and cattle ranges, but in the smaller cities and towns, and villages. The photographs were chosen by Mr. Roy E. Stryker from 40,000 documentary films, made under his direction for the Farm Security Administration.

Notes and Comments

New Products

The Willo Filto-Kleen Water Filter. introduced by Willoughbys, 110 West 32nd St., New York City, solves the problem of water impurities in the darkroom. The Filto-Kleen filter is easily fitted to your darkroom faucets. Price is only \$1.25.

General Electric's lamp department at Nela Park has just announced a new synchro-press lamp called G-E Mazda photoflash lamp No. 11 to replace its present No. 11A lamp. The new No. 11 flash bulb, employing shredded foil is designed to have approximately 50 per cent greater light output than that of the foil-filled No. 11A lamp. Lumen seconds of the present lamp are 18,000 to 22,000, of the new No. 11 are 28,000 to 32,000. Peak lumens of the No. 11 are 2 million, of the No. 11A lamp are 2.4 million. Changes in the ratings of other units in the G-E Mazda Photolamp line are as follows:

Type	Old Values	
	Peak Lumens	Lumen Seconds
SM	500,000	2,500- 3,000
# 5	1,200,000	16,000- 18,000
#50	5,500,000	100,000-120,000

Type	New Values	
	Peak Lumens	Lumen Seconds
SM	700,000	4,500- 5,000
# 5	1,200,000	17,000- 19,000
#50	6,000,000	110,000-125,000

The Nela Park photolamp experts point out that these changes should lead to even clearer pictures and easier synchronization, in the cases of the lamps affected, than heretofore.

Small, compact, and thoroughly efficient is the new Brownie Darkroom Lamp, Model B, announced by the Eastman Kodak Company. Modern in design, the lamp is equipped with a filter cup of molded Tenite—Eastman's tough and durable plastic. The Brownie Darkroom Lamp screws into any ordinary electric light socket, and a 7-watt, 110-125-volt bulb, supplied with the unit, provides correct illumination. To meet all users' darkroom needs, Tenite filter cups of three different colors are available. The red cup is used when developing orthochromatic films or plates; the green cup for panchromatic films or plates; and the yellow cup for contact or enlarging papers. They are easily interchanged by merely unscrewing one cup from the molded top, and replacing it with the cup to be used. The Brownie Darkroom Lamp is available with any one of the filter cups, or in a kit, containing all three.

Mansfield Fototints—concentrated color solutions for tinting movie film (titles or scenes), transparencies, and prints—are now available in six brilliant colors—Royal Purple, Sapphire Blue, Emerald Green, Sunlit Yellow, Amber Brown, and Fire Red. They come packed in handy shaker-top bottles to eliminate the necessity of weighing or measuring. Each bottle will make one gal-

lon of working solution, and retails at 45c each. Tinting is simple and easy—nothing to measure, no complicated solutions to make when you use Mansfield Fototints. A few drops diluted with tap water will make a solution that will add color and life to your movies and transparencies, or beautify your toned black-and-white prints. Just place film, transparencies or print in water to which a few drops of Mansfield Fototints have been added, then rinse in clean water and dry. Various intermediate colors may be obtained merely by mixing two or more of the Mansfield Fototints in the same bath. If multi-colored prints are desired the Fototints may be applied to local areas with a fine camel hair brush. Toned prints will acquire a new beauty if tinted with an appropriate color, so that the highlights will possess a different color from the toned shadows.

Strong and rigid in construction, the new Kodak 8 x 10 Metal Paper Board will appeal to amateur photographers who make their own enlargements. The all-metal paper board is finished in gray lacquer with the base of wrinkle finish. A padded sub-base prevents slipping and scratching. A stationary mask frames 8 x 10 paper to actual print size of 7½ x 9½, leaving a ¼-inch margin on all four sides. Hinged at the rear of the base, this mask is easily raised by means of a tab projecting beyond the base. A concealed spring device holds the mask in a raised position while the paper is placed against guides at the left and back. When prints of other smaller sizes are to be made, two movable masks are used. Sliding along two sides of the stationary mask, they may be locked at any selected point by a turn of a knurled knob on each mask. An inch scale is etched and white filled, and the two masks can be removed from the stationary mask at will. A small lever can be adjusted to give print margins of ¼ or ½ inch. The Kodak 8 x 10 Metal Paper Board is particularly useful with the Kodak Portable Miniature Enlarger.

To meet the critical requirements of color photography, the Wabash Photolamp Corporation, of Brooklyn, N. Y., has announced three new Daylight Blue Superflood Photolamps, identified as Nos. B1, B2 and B4. These new bulbs are made of a natural daylight blue filter-glass which acts as its own self-filter to bring out the color spectrum of the light to approximate natural daylight, thus eliminating the need for correction filters when taking indoor color pictures with regular professional daylight type Kodachrome film. The natural daylight-blue glass of the bulb has been inside frosted to produce a soft diffused type of light that is recommended especially for all applications where artificial light is required to supplement daylight and for softer shadows in both black and white, and in color. The characteristics of the three new bulbs follow:

	No. B1	No. B2	No. B4
Watts	250	500	1,000
Bulb Designation.....	A21	A25	PS35
Life in Hours.....	3	8	10
Approximate Lumens.	6,100	12,000	23,500
List Price.....	\$3.0	\$6.0	\$1.75

Booklets and Catalogs

A new 100-page catalog has just been published by the Norman-Willets Camera Stores, 330 W. Washington St., Chicago, Ill. This new catalog is profusely illustrated and it lists all kinds of photographic supplies and equipment for both the movie and still photographer. A copy can be obtained by writing the above address.

A new Chess-United brochure, describing new developments by this well-known firm, is now ready for distribution. A copy can be obtained, without charge, by writing the Chess-United Co., Inc., Emmet Bldg., New York City.

"Tips On Better Child Pictures," by Ruth Alexander Nichols is the title of an excellent little booklet just issued by the General Electric Co., 1 River Road, Schenectady, N. Y. The booklet is twelve large pages and is illustrated by examples of this famous child photographer's work. If you are interested in pictures of children, and who isn't, be sure to write for your free copy of this book to the above address. Ask for publication GES-2730.

"Choosing Your Camera," a new booklet that gives a vast amount of impartial information about photography has just been issued by Argus, Incorporated, Ann Arbor, Michigan. Fully illustrated with pictorial subjects, charts and graphs it gives the man thinking about a camera much data he will need to choose a camera intelligently. This book containing a free offer, that really is FREE, is mailed without cost to all who respond to Argus weekly ads in Life Magazine or to any of the ads in photography or hobby magazines. Announcement was made recently by Homer Hilton, Sales Manager of Argus, Incorporated, Ann Arbor, Michigan, Camera Manufacturers, of the promotion of Robert Woolson as factory representative for Michigan, Western Ohio and Indiana. For a considerable period Mr. Woolson was sales promotion manager for Argus and for the last year and a half has been advertising manager, where he made many valuable contacts with the Argus dealer organization. He formerly was with Dufay as mid-west representative and has lectured widely on color photography. "Bob Woolson has an exceptional background in the professional technicalities of photography and in the precision of fine camera making," said Mr. Hilton. "His wide and varied knowledge is sometimes almost uncanny. For many months he has been selling his ideas through magazine space, direct mail, bulletins and other promotional activities. Now he will have opportunity to judge how much weight the man behind the shop counter gives to well intended and often costly helps that originate at the factory. By the same token he should be able to give the plant much down-to-earth information regarding what the man on the firing line really wants

and what he will use effectively after the factory gives it to him."

Announcements

Gering Products, Inc., well known buyers and sellers of used photographic film and plastic scrap materials of all kinds for more than 20 years, announce that they have moved from their former Rahway, N. J., address. Their new address is: North 7th Street and Monroe Ave., Kenilworth, N. J., telephones CRanford 6-2144 and 6-2145. From this considerably larger location they can serve their customers more promptly and efficiently. This well established firm does custom granulating and pulverizing, reclaiming, grading, and cleaning of all thermoplastic scrap materials such as: celluloid, acetate, styrene, acrylic, vinyl resins, sheets, rods, tubes, molding powders, etc., in all colors and all quantities.

Here is something which we know many photographers have been looking for—a correspondence course in Pictorial Photography, personally conducted by an outstanding Pictorialist. Most readers of this magazine are well acquainted with Fred P. Peel, F.R.P.S., A.P.S.A., and can recall his lovely high key, shadowless figure studies and portraits which have won him so much fame. He now offers a ten lesson course in Pictorial Photography in which all correction, comment and criticism is done by him personally. The cost of each course is \$10.00 for the lessons and \$1.00 additional as each lesson is sent in. Thus the total cost is only twenty dollars. Mr. Peel has prepared a fully descriptive brochure which answers every possible question which could be asked about the course and about his qualifications of a teacher. He will gladly send it to you free of charge. Address Fred P. Peel, F.R.P.S., A.P.S.A., Chester, Pa.

Baxter's Camera Shop, 70 Post St., San Francisco, Calif., have expanded their direct mail department in order to increase their service to out-of-town customers. Mr. Jerome Arends, Jr., is now in charge of this department and all mail orders will receive his personal attention. Baxter's Camera Shop carry a large, complete stock of all types of photographic equipment which insures prompt, efficient handling of orders. Write Mr. Arends for a free copy of Baxter's Bargain List.

Program for National Convention Now Almost Completed.—With only one spot remaining unfilled on the Commercial Program and final word on that expected momentarily, and perhaps one entirely new Clinic to add to the seven originally planned, the Executive Board of The Photographers' Association of America feels safe in saying that its promise to offer this year the finest National Convention Program in The Association's history has been well kept. From beginning to end it consists of headliners and, although many new names have been added, we are going to publish the list in full in this issue instead of going into detail about each newcomer. With so many of our readers planning to attend or at least giving it serious consideration, this galaxy

of talent should help them to make up their minds. First, though, let us remind you that this will be the 54th Annual Convention of The P. A. of A., that the National Photographic Dealers' Association will hold their 8th Annual Convention at the same time, and that both are joining in producing a Trade Show which should break all records. Everything will take place under one roof at the Stevens Hotel, Chicago, Ill., from August 18 to 22, inclusive—and if you have not already done so you had better send in your room reservation without delay. And so for the program as it now stands:

Clinics—each one hour every day for four days:

16mm. Commercial Movie Clinic—conducted by Gordon Bell, South Norwalk, Conn.

Commercial Business Forum—conducted by Fred A. Benke, Salem, Ill., and Horace A. Grignon, Chicago, Ill.

Portrait Negative Quality Clinic—conducted by George J. Kossuth, M. Photog., Wheeling, W. Va.

Direct Color Clinic—conducted by Charles Harris Miller, Chicago, Ill.

Portrait Retouching Clinic—conducted by Mrs. Charles L. Pyke, Peoria, Ill.

Commercial Negative Quality Clinic—conducted by J. W. Scott, M. Photog., Baltimore, Md.

Reception Room Clinic—conducted by Nan Wallace, M. Photog., Toledo, Ohio.

And perhaps, though this is not yet a promise, one entirely new Clinic which will be a complete surprise to a growingly important section of the profession.

Portrait Program—two features every day for four days:

Making Pictorial Portraits for Reputation and Profit—talk and demonstration by Robert L. Ball, Corvallis, Ore.

Common Faults in Everyday Portraiture—illustrated talk by J. Anthony Bill, Cincinnati, Ohio.

What the Portrait Photographer Should Know About Composition—illustrated talk by A. A. Bosshart, York, Pa.

Full Figure Portraiture Means Extra Profits—talk and demonstration by C. W. Dishinger, Jacksonville, Fla.

Draping in Portraiture—demonstration by Mrs. Helen Sheldon Gerdes, M. Photog., Jackson Heights, L. I., N. Y.

Portrait Print Clinic—platform discussion and criticism by the Portrait Jury: Roy N. Hirshburg, Richmond, Ind., Max Habrecht, Detroit, Mich., and Robert Kohler, Milwaukee, Wis.

Photographing Difficult Children—demonstration by Mel Thurman, Abilene, Texas.

Direct Color in Portraiture—illustrated talk and demonstration with one-shot cameras by Frank Turgeon, Jr., Palm Beach, Fla., and Washington, D. C.

Commercial Program—two features every day for four days:

How a New York Department Store Makes Its Photographic Illustrations—talk and demonstration by William B. Garrison, Abraham & Straus, Inc., Brooklyn, N. Y.

Rights and Wrongs of Architectural Photography—illustrated talk by Ken Hedrich, Chicago, Ill.

What the Average Photographer Must Know About Commercial Photography—talk by John F. Murray, Omaha, Nebr.

Solving Some Tough Ones for National Advertising—talk and demonstration by John Paul Pennebaker, Underwood & Underwood Illustration Studios, New York City and Chicago, Ill.

Problems in Industrial Photography—talk by William Rittase, Philadelphia, Pa.

Errors and Safeguards in Direct Color Photography—talk and demonstration by Giovanni Suter, Chicago, Ill.

Modern Methods of Light Control in the Illustrating of Glass—demonstration by Harold E. Waltz, Toledo, Ohio.

One feature still remains to be announced.

Business Promotion—four or more articles which will be printed in the Convention Report but will not be given from the platform:

An Easterner Goes Western—by Morton Harvey, Ponca City, Okla.

Can a Portrait Photographer Use Radio Profitably—by C. L. Voss, Fargo, N. Dak.

At least two more articles to be announced.

Photo Finishing—four or more articles which will be printed in the Convention Report but will not be given from the platform:

As none of the articles under this section or that of Business Promotion are announced until the articles have been actually received and accepted for publication, announcement of these must wait until next month.

In addition to all the above, the Picture Exhibit, open all day for four days and also on two evenings; entertainment—dancing and cabaret features on each of the first three evenings and the Annual Banquet (the only thing which costs extra) on the fourth; the N.P.D.A. Convention, open to all dealers for three days; Group Criticisms by the Two Juries in the Picture Exhibit—two hours each day for four days; Open House by Leading Chicago Commercial Studios for certain specified hours each day; Council Sessions and various other special events.

The question is not "Are you going to Chicago?" but rather, "How can you afford to stay home?" We'll be seeing you at the Stevens in August!

The only woman manufacturer of bellows is truly a wizard. Few enough camera people know all about bellows and we know it is no easy task to repair old bellows or make new bellows to properly fit any camera or enlarger made. Twenty years ago the wife of a well known camera repair man in New York City began assisting her husband at home in cutting and folding bellows. She had a natural dexterity for this technical work and before long she was doing so much work there was not sufficient room at home. In the past fifteen years she has fitted bellows, in her own shop, to practically every camera and enlarger made, domestic or foreign. Now she is making bellows, hoods, magazine bags, etc., for manufacturers. They send their problems to her and she does not rest until she figures them out. How she has time to personally attend to each and every little or big job, bring up her family, run her home in New Jersey and her own business can only be realized if you see (Mrs.) Agnes

(Continued on page 487)



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4 Because throughout the book the author has placed emphasis on the practical rather than the theoretical and has ignored involved mathematics, garibthmic curves and mysterious looking graphs.

5 Because at the end of each chapter the author has given a series of experiments that serve to amplify the text and make the knowledge an unforgettable part of the reader's learning.

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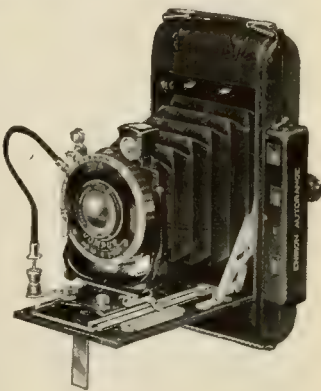
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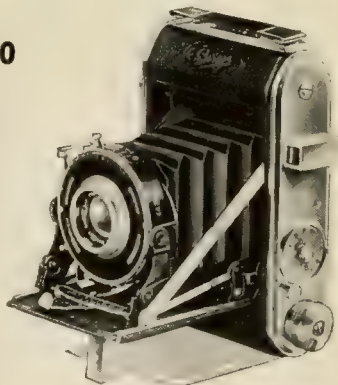
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(Continued from page 484)

oyse or send work to her at the New York
ellows Co., 121 Fulton Street, New York,
Y.

Home Movies window displays sell merchandise, especially so when the display is
it of the ordinary and gives the public a
ek "behind the scenes," showing the in-
licate and elaborate method used in pro-
ucing cartoon movies. Couple with this
teresting educational display the actual
owing of a finished cartoon movie, with
ound, and you have a "sure fire" sales
hicle that pulls into the store. It sells
ome Movies and also stimulates the sale
projectors and other photographic equip-
ent. Such has proven the case with the
J. Newberry Company's Santa Monica,

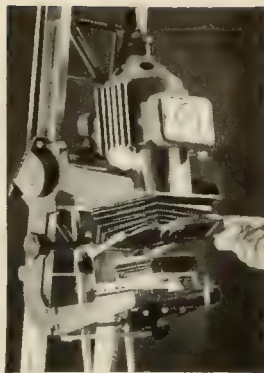


The Display Installed

California, store at 1300 3rd Street, window
own above, and also their Beverly Hills
ore. This window was installed by Holly-
ood Film Enterprises, Inc., 6060 Sunset
vd., Hollywood, with the cooperation of
e Walter Lantz Universal Studios, pro-
cers of Oswald Rabbit: the Three Mon-
ys—Meany, Miny and Moe, and other car-
on features. Hollywood Film Enterprises
exclusive manufacturers of the Mickey
ouse, Donald Duck, Oswald Rabbit and
e Three Monkey cartoons as well as
Charlie Chaplin Comedies, Hollywood Movie
ar Films, Christie Comedies, Historical
ictures, Animal Pictures, Travelogs, West-
ns, Dramas, 8mm and 16mm, in silent and
und. This window display shows the many
d various steps taken in the production of
16mm animated cartoon Home Movies,
om the beginning of the hundreds of indi-
ual drawings to the completed reel, pack-
ed and ready for the customer. A pro-
tor was installed and different cartoon
ins, with sound, were run at frequent in-
vals. It is needless to report this display
ocked the street," and the immediate
es were so gratifying the display was
ld over from the scheduled one week
nd to a three week showing. This com-
pote window display may be obtained with
e purchase of certain quantity of films

(Continued on page 489)

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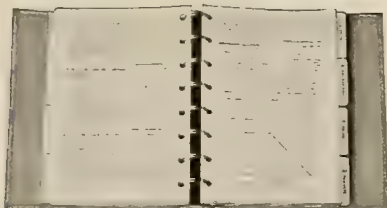


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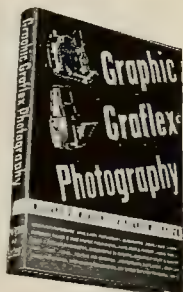


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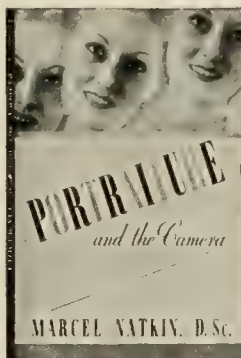
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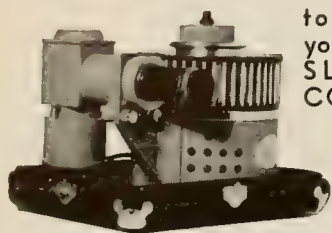
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Correspondence

Competition Comment

Dear Sirs:

Ten times I have sent you one of my prints; not once have you granted me even fifth award; so you will understand that am submitting the eleventh, again with hope, but no longer with expectation.

And you will also understand why Violet Cooke's letter in the August issue attracted my attention. The only difference between Violet and me is that my opinion of your judges is the opposite of hers: So much do I think of their choice and judgment that the first thing I do, every month, is to examine the award prints and read the criticisms of them. Nothing is perfect. But if I have any fault to find (aside, be it understood, from their chronic rejection of my work) it has been the too-frequent argument that something or other in a print leads the eye out of the picture." When I read that, there comes to mind a picture of a portion of a spider's web, every line in which "led out," but from which I could hardly tear my eyes away. As luck would have it, that phrase is happily absent from the criticisms in the August issue, except in negative way: "The eye is released without being carried out of the picture . . ."

Sincerely yours,
San Diego, Calif. Corneil Ridderhof

Do readers agree that the lines in a spider's web "lead out"?—Ed.

Dear Sirs:

Well, I see it's time to defend abstract art again, so here goes!

Regarding Miss Violet Cooke's irritation at the choice of awards for prints in Camera Craft, as expressed in her letter to you in the August issue.

Miss Cooke has really answered her own question when she says, speaking of judges, that "a man should be chosen who knows to a certainty how to distinguish a good photograph from a poor one, and who is broad enough to give an unbiased and unwarped judgment in granting the awards." That fully explains why the "overflowing print washing equipment" happened to be in the July issue. To the trained eye, subject matter is secondary, and good design, which embodies rhythm, pattern, movement, etc., plus good textural rendition, are the necessary things which go to make up a satisfactory picture. In this case, a scene showing a whole lake would not have been any better.

I think Miss Cooke would find Roi Partridge's article, "What is good photography?" in Camera Craft for November, 1939, very helpful in gaining a better understanding of the importance of abstract art as a basis for sound composition. We all have difficulty, at times, in seeing the "why" of a certain thing, but I am sure that when Miss Cooke unravels these things which are perplexing her at present, she will be amazed at the

(Continued on page 505)

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CALIFORNIA

(Continued from page 503)

ated amount of pleasure she will find in all
t) photography around her.

Sincerely,

Ms College, Calif.

Doris Varney

Mr Sirs:

One thing that has impressed me about
the Camera Craft Competitions is that all
sets of pictures win awards. This seems
time to indicate a jury or juries of con-
siderable competence. At least they don't
always go for the same thing, as too many
times seem to do. I am not criticizing
Violet Cooke. I think her opinion was ex-
pressed in intelligent and sportsmanlike
manner. Miracles do occur now and then.
I might even land a picture in Camera Craft
some day, but I never expect to see the
day when I will wholly agree with the
selections of any jury.

Sincerely yours,

Ever, Colo.

Alfred L. Stanton.

Mr Sirs:

Did Violet Cooke read the comment which
accompanied Fred Korth's picture in the
M. Camera Craft? . . .

Very truly yours,

Pittsburgh, Pa.

Henry Mercer

Mr Sirs:

In reply to Violet Cooke's comment in the
August issue, I fail to see how it is possible
to estimate the work of a jury unless one
sees the prints they rejected as well as the
accepted work. In the Camera Craft Com-
petitions the judges must pick ten prints.
Is it possible that on occasions the judges
don't think any more highly of some
of their own selections than Miss Cooke
did? I think the Camera Craft standard is
high, but suspect that there are months
when superlatively good stuff fails to show
up. After all there are not nearly so many
really good photographs made as many of
us would like to believe.

Sincerely,

New York, N.Y.

Samuel L. Hilton

Mr Sirs:

I was interested in the letter of Violet
Cooke in your August edition, commenting
on the picture of the water drain by Fred
Korth. I think the fact that such a picture
received honors is an indication of a wide-
spread movement in American photography
which has many amateurs bewildered. I re-
gret the tendency to substitute novelty for
quality.

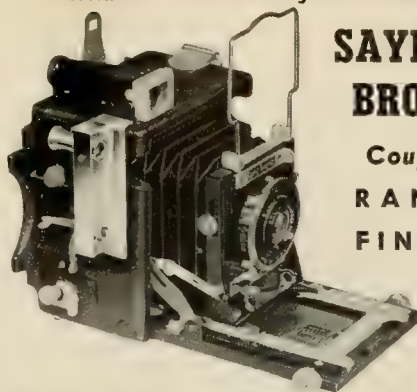
Men and women, who take up pictorialism
with serious way, read and absorb books on
the subject with great earnestness. They
lean about the line of beauty, the law of
this, etc. They are advised to study fam-
ous and successful paintings to see how the
rules of composition are applied. After ab-
sorbing these things they find two things
which are disconcerting. One is the over-
whelming urge for novelty which is fostered
by certain photographic publications. The
other is the fact that, with some judges,
arrangement is everything and subject mat-
ter nothing.

Camera Craft printed a picture of the lat-

(Continued on page 507)

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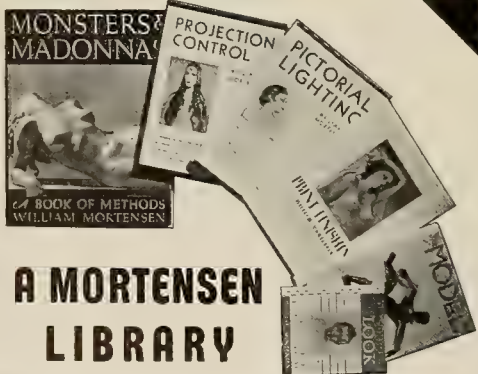
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(Continued from page 545)

r type a few months ago when it gave an
ward to a picture of furniture in back of
one sort of a beach house, a picture which
emed to me to be utterly undistinguished.
amera Craft anticipated criticism about
e selection by saying that if beginners
w nothing in the picture the fault would
with the beginners.

Why do judges, competent and some of
em famous, do these things? Perhaps for
e same reason that a person who had lived
clusively on cake would welcome a piece
black bread. They have looked at so many
ctures into which amateurs have poured
eir growing love of beauty and their in-
easing knowledge of sound composition,
d which achieve some degree of pictorial-
n, that these things cloy upon them and
ey prefer novelty instead.

Sincerely,
Jack Wright

ar Sirs:
Hurrah for Violet. Tell her to keep pitch-
g!
k Park, Ill. Walter Smith

Beginning with this issue, Camera Craft
ill publish the names of the judges each
onth.—Ed.

Club Notes

Forthcoming Exhibitions

XVII Salon Internacional de Fotografia,
Zaragoza, Spain. Address Secretario de la
Ciedad Fotografia de Zaragoza, Plaza De
s, 7, Zaragoza, Espana. Closing date Sept.
1941. Entry fee \$1.00, limit 4 prints.
merican Exhibitors should send entry fees
the American Photographic Publishing
Co., 353 Newbury St., Boston, Mass. Oct. 1 to
1941.

This Annual Forest Festival International
Photographic Salon, under the auspices of
the Seneca Camera Club, Elkins, W. Va. Ad-
dress Dr. B. I. Golden, Chairman Photo-
graphic Salon, Mountain State Forest Fes-
tival, Elkins, W. Va. Closing date Sept. 18,
1941. Entry fee \$1.00, limit 4 prints. Oct. 2
1941.

Sixteenth Annual Salon of Photography
Museum of Fine Arts of Houston. Address
the Salon Jury, Museum of Fine Arts of
Houston, Main and Montrose Bvds., Hous-
ton, Texas. Closing date Sept. 20, 1941. En-
try fee \$1.00, limit 4 prints. Oct. 4 to 26, 1941.

The First Annual International Salon of
Victoria, under the auspices of the Victoria
Photographic Association of Victoria, B. C.,
Canada. Address Alec Gamon, Corresponding
Secretary, 469 Beach Drive, Victoria, B. C.,
Canada. Closing date Sept. 25, 1941. Entry
fee \$1.00, limit 4 prints. October 1 to 31,
1941.

The 1941 International Salon of the Photo-
graphic Society of America. Address the
Photographic Society of America, Museum
of Science and Industry, A. F. Brunner,
Sloan Chairman, Chicago, Ill. Closing date
Oct. 29, 1941. Entry fee \$1.00, limit 4 prints.
October 24 to November 22, 1941.

(Continued on page 509)

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(Continued from page 507)

The First Annual International Salon of Pure Photography. under the auspices of the Photographic Society of America. Address: Nature Salon, Photographic Society of America, c/o Philadelphia Zoological Garden, 34th Street and Girard Ave., Philadelphia, Pa. Closing date Oct. 1, 1941. Entry fee \$1.00, limit 4 prints. The Museum of Science & Industry, October 24 to November 2, 1941.

The Second Pennsylvania International Salon of Pictorial Photography. Address: Mr. W. Ken McLaughlin, Salon Secretary, 3215 No. Front St., Harrisburg, Pa. Closing date Oct. 1, 1941. Entry fee \$1.00, limit 4 prints. Pennsylvania State Museum, October 16 to 27, 1941.

Third Annual Atlanta National Salon. Address: Mrs. George Bird, Salon Secretary, 685 Xingenside Drive, Atlanta, Ga. Closing date October 1, 1941. Entry fee, \$1.00, limit 4 prints. October 12 to 31, 1941.

The New York Salon of Photography 1941. Address: Janet Wilson, Salon Secretary, 121 West 68th St., New York City. Closing date October 1, 1941. November 2 to 30th, 1941.

The Sixth Annual Cedar Rapids Salon of Photography. Address: Wes Panek, Salon Secretary, 1910 Mt. Vernon Ave., S. E., Cedar Rapids, Iowa. Closing date Oct. 4, 1941. Entry fee \$1.00, limit 4 prints. Nov. 1 to 11, 1941.

West Virginia Annual Salon of Photography. Address: Salon Committee, 110-A McDaniel Street, Charleston, West Virginia. Closing date October 11. Entry fee \$1.00, limit 4 prints. November 1 to 9, 1941.

Philadelphia International Salon of Photography. Address: Mr. Hans Kaden, Architects Building, 17th & Sansom Sts., Philadelphia, Pa. Closing date October 15, 1941. Entry fee \$1.00, limit 4 prints. November 1 to 9, 1941.

The Second Petroleum Industry Photographic Salon, sponsored by the Photographic Society of America and the American Petroleum Institute. Address: The Second Petroleum Photographic Salon, c/o American Petroleum Institute, 50 W. 50th St., New York, N. Y. Closing date Oct. 17, 1941. No entry fee, limit 4 prints. San Francisco, Calif., Nov. 1 to 7, 1941, Palace Hotel; Chicago, Ill., Nov. 22 to Dec. 15, 1941, Museum of Science & Industry; New York City, Dec. 2, 1941, to Jan. 9, 1942, New York Museum of Science & Industry.

The 9th Annual National Salon of Photography, under the auspices of the Yonkers Camera Club. Address: Hubert L. Swapp, Director, 9th Annual National Salon, Yonkers Camera Club, Y. M. C. A., Yonkers, N. Y. Closing date October 7, 1941. Entry fee \$1.00, limit 4 prints. Nov. 11 to 24, 1941.

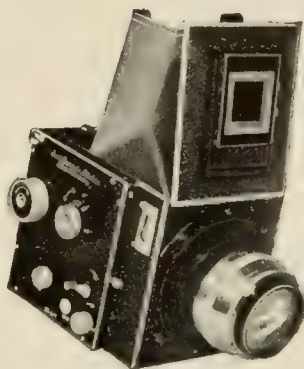
Fifth Rhode Island National Salon of Photography. Address: H. E. Hammond, Salon Chairman, 103 Westminster St., Providence, R.I. Closing date Oct. 25, 1941. Entry fee \$1.00, limit 4 prints. Museum of Rhode Island School of Design, Nov. 16 to 30, 1941.

(Continued on page 511)

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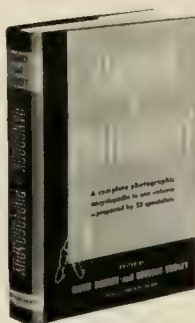
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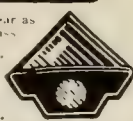
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(Continued from page 509)

Annual Springfield International Salon of Photography. Address the Salon Secretaries, c/o The George Walter Vincent Smith Art Gallery, Springfield, Mass. Entry fee \$1.00, limit 4 prints. Closing date Dec. 6, 1941. George Walter Vincent Smith Art Gallery, Jan. 2 to 25th, 1942.

International Salon of the Photographic Society of Southern California. Address Jack Powell, Salon Committee, 43 So. Robles Ave., Pasadena, Calif. Closing date Dec. 22, 1941. Entry fee \$1.00, limit 4 prints. Grace Nicholson Art Galleries, Jan. 30 to Feb. 1, 1942.

Club Activities

The Light and Shadow Club of San Jose, California, have divided their membership into two teams for their monthly competition. At the present time the Lewis "Flashers" enjoy a comfortable margin over the "Rangefinders."

The Miniature Camera Club of Philadelphia has announced the judges for their upcoming salon: Mr. Ghislain Lootens of New York, Mr. John Rowan of Baltimore, Md. and Dr. Max Thorek of Chicago, Ill. Closing date for entries is October 15th. Entry blanks may be obtained from Mr. Thorek, Kaden, 17th and Sansom Streets, Philadelphia, Pa.

The North Penn Photographic Society, c/o 144, Lansdale, Pa., are now preparing a traveling show of 35 prints. Clubs wishing to schedule this show should write Mrs. Colburn, Corresponding Secretary, at above address.

The members of the California Camera Club are setting a fast pace at the Photo Forum which is held each Monday night at the San Francisco Museum of Art. In the six forums the members have won four First and three Second Awards.

The Retlaw Camera Club of San Francisco, California, will bring their print competition to a close during the month of August. Two of their members are within a few points and the competition is keen. A First Prize of \$50.00 and four other prizes totaling \$50.00 will be awarded.

The Sierra Camera Club of Sacramento, California, gave their own members a chance to present a program during July. Instead of inviting guest speakers, members of the club took over this duty and were well received.

Members of the Y.M.C.A. Movie and Camera Club of Des Moines, Iowa, recently held a camera club outing at the Y.M.C.A. Camp on the banks of the Des Moines River. In addition to picture taking, the members indulged in a variety of sports which the camp supplied in full measure.

Exhibitions

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(Continued on page 555)



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OUTDOOR PORTRAITURE

PROBLEMS OF THE FACE AND FIGURE
IN NATURAL ENVIRONMENT

By WILLIAM MORTENSEN

In spite of the fact that outdoor portraiture is the most popular field of photographic endeavor, little or nothing has been written about it. Thus, photographers will find Mr. Mortensen's complete treatise on this subject a welcome addition to their libraries.

The author covers his subject in careful detail, explaining the many problems of the work and their solutions. Each phase of outdoor portraiture is considered: equipment, handling the camera, lighting, backgrounds and the arrangement of material.

In addition, he gives complete details on the construction and use of the portable reflector he uses in his own work.

Even the beginner in photography will find much of value to him in this book for Mr. Mortensen devotes a chapter to the consideration of the four common problems of outdoor work: the photographing of children, elderly people, groups and pets. He shows how these pictures may be removed from the snapshot class and become photographs of real interest and value.

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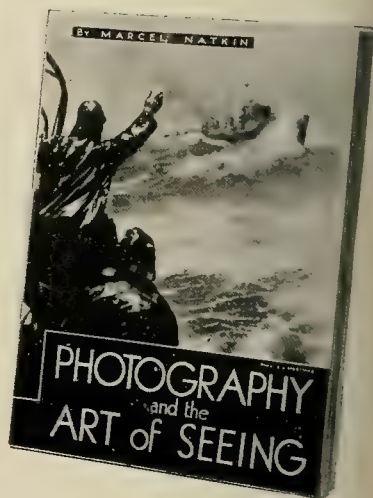
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The Book You Need

THIS is truly an important book, and one which every serious photographer should not fail to read. Treatises on photographic art usually fail for one or the other of two reasons. Often the subject is treated dogmatically and a set of hard and fast rules laid down which if accepted and followed would stifle all originality and all free expression. Others write so ephemerally that the student finds it impossible to obtain any practical help from their pages. He becomes lost in a sea of words without meaning. Happily Mr. Natkin has the faculty of making his artistic discussions wonderfully clear and concrete without resort to dogmatism. His objective in this book, briefly stated, is to show his readers how to "see" with the eyes of the artist, a faculty which is noticeably lacking in the great majority of photographers. Says the author in his preface: "The artistic quality of a photograph is a function of the 'art of seeing.' What, precisely, is the nature of this art? The art of seeing cannot be summarized in a few rules, nor is this my aim. I do not wish to lay down laws, nor yet to analyze beautiful pictures. My results only interest me in so far as they will be concretely profitable to my readers. My purpose is merely to open their eyes to the multiiform aspects of the visible world which habitually pass unnoticed. The art of seeing which I propose to expound will be more a stimulus to action than an ephemeral theory



of aesthetics." To show the immense value of this book it need only be said that Mr. Natkin amply fills the promise of the statement quoted above.

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Bridalveil Fall, Yosemite National Park, by Ansel Adams . . . One of a series of sixty scenic prints reproduced in four colors, direct from original transparencies, now being distributed throughout the West at Service Stations and Garages selling Standard Oil Products.

Color Photography Demonstrated

T. L. Hallen

A GAIN this year Standard Oil Company of California is distributing, through service stations and garages selling Standard Oil Products, a new series of reproductions of natural color photographs. This series of prints, there are sixty different pictures, is sufficiently inclusive and well organized to rate as an attempt to show the real West as it really is. It is also a thoroughgoing demonstration of natural-color photography in one of its most interesting aspects.

Studying the 1941 Standard Oil color prints you are impressed by how well they demonstrate one of the most popular types of photographs. Consciously or unconsciously all of us have often tried to get photographs that sum-up, or express, a scene. That is the function of the Standard Oil Company prints, and they fulfill it well.

More than that, they provide a unique opportunity to see how color photographs really look. Everybody knows that one of the great shortcomings of color photography is the difficulty of obtaining good prints on paper. Were it possible to obtain, at reasonable cost, good prints on paper in color, there would be little else. Pending that revolution we look at color shots on screens; we study them as transparencies . . . and we often wonder what they really look like.

Color reproductions, today, are in almost every publication. But the dramatic, technically polished, color photography, with its props, models and highly corrected engravings, on display in the magazines bears about the same relationship to your color photographs, and to mine, as the latest streamline pursuit-ship does to an amateur's rubber band powered model plane.



"White Sands"

(From the original Kodachrome)

Horace Bristol

However, when we look, for example, at the print of Fred Bond's color photograph of Bryce Canyon included in the 1941 Standard Oil Company series, we are looking at the same kind of picture we all take. True, we are looking at one taken by a master, but we are looking at a photograph taken with a comparable camera, under comparable conditions and of a comparable subject that we ourselves have often wrestled with.

Or, if the technical perfection of Bond's work dismays you, turn to Carl Blaurock's view of Snowmass Valley; or Alan Carscallen's picture of Skoki Ski Lodge. Here you will be looking at the work of amateurs using average equipment, albeit using it with considerable skill and success.

As a panorama of pictures in natural color the Standard Oil Company 1941 series is consistently interesting. Among the many highlights is Mike Roberts' picture of the General Sherman Tree in Sequoia National Park, the oldest and largest living thing on this earth. A photographic tour de force, shot from on top of a specially erected forty-foot steel tower in order to get all the tree in without distortion; Mike swears he used a pin hole in black paper in lieu of lens when he found his widest angle still wasn't enough.

Mike Roberts' shot of Pikes Peak, also in the series, besides being an arresting compositional handling of hot and cool colors, has behind it a story of considerable human interest. As a boy in a Colorado photographic studio, Mike borrowed his boss' camera and made his first photograph



"Bryce Canyon"

Fred Bond

(From the original Kodachrome)

The subject: Pikes Peak from the entrance to the Garden of the Gods.

Twenty years later, learning that the Standard Oil Company was searching for a color photograph that caught the spirit of Pikes Peak, Mike journeyed back, shot the same scene from exactly the same spot; then had the satisfaction of seeing the Selection Committee choose his picture for the Program. Typically enough, Mike's only comment was, "wish I'd had a haze filter that first time!"

Fred Bond, who has six pictures in the current program, turns in his usual polished performance on difficult assignments. For example, on both Grand Canyon and Crater Lake, undoubtedly two of the toughest subjects for the color photographer on this continent, Bond delivers a pleasing demonstration of his photographic philosophy which is, "To be successful a photograph of a scene should be a happy combination of record and artistic rendering."

Another photographer gratifyingly well represented in the series is Ray Atkeson. This Portland man's five scenes both bear out and explain his rapidly growing reputation. His Mount Rainier print, enlarged from a 4 x 5 transparency, is soundly composed against a mackerel sky of the sort color photographers dream about. And, if you have ever tried to photograph Multnomah Falls with its exasperating shadows and angles you will marvel at Atkeson's complete and undistorted picture of the Falls.

One of the qualities which make the Standard Oil Company prints



"Mount Shuksan"

Bradner Keerl

(From the original Kodachrome)

remarkable as a collection of scenic pictures is emphasized by Bradner Keerl's photograph of Mount Shuksan in Washington. Keerl, who lives in Seattle, has taken two long trips through British Columbia in search of pictures for the series only to have haze, smoke, rain, even snow, balk him every time he set up his camera.

Then he turned in the Shuksan shot. With its blue water, snow-capped peaks, trees, flowers and sunlight, this picture sums up the Northwest at its scenic best about as well as any single photograph is likely to. The scene is almost too perfect. The few, fleecy clouds are needed to accent the cerulean sky. "I got that picture," says Keerl, "on a Sunday's outing when I hadn't planned to do any photographing at all."

The series of sixty pictures represents in all the work of thirty different photographers. These range from Ansel Adams, John Kabel, Ivan Dmitri, and Horace Bristol to W. L. Bower's, Tucson insurance executive, whose 35 mm. shot of Mission San Xavier del Bac reproduces as one of the most appealing pictures in the entire program.

Included, too, are several pictures which are obviously in the Program because their makers knew and understood the country they were photographing. Downey's study of Scott's Bluff near which he lives, and Ross Hall's snowscape of Idaho's Lake Pend Oreille fall in this group, as does the picture by John M. Blocker, the Austin, Texas machinist, who loves the Big Bend Country of his state so well that his photograph of it won the approval of the Selection Committee over the work of specially assigned professionals.



"Monument Valley"

Esther Henderson

(From the original Kodachrome)

All in all the series is a milestone in photography as well as in constructive publicity. With millions of prints distributed to motorists who carry and mail them to all parts of the country the Standard Oil pictures each year more definitely help to build the West. Just as definitely they demonstrate and build still greater interest in photography.

That the people respond so vigorously to such a public spirited undertaking is one of the most encouraging features of the picture program. In fact, so great is the demand for pictures that each bi-weekly issue is absorbed almost as quickly as it goes on distribution and the Company, therefore, wishes it emphasized that the prints are available only at service stations and garages selling Standard Oil Products and that mail requests cannot be filled.

The search has already begun for more and better color photographs for next year's Picture Program. "Barring active war and/or total economic collapse" between 60 and 100 color photographs will be purchased at prices ranging from \$50.00 to \$150.00. A 14 page mimeographed brochure has been prepared which tells in the greatest detail exactly what is wanted and just how to go about submitting your work if you think that you have Kodachromes of sufficient merit to warrant consideration. Address a post-card requesting the brochure to Roland Meyer, Crocker-Union, 735 Harrison St., San Francisco, Calif. It will reach you free of charge.—ED.



The Author at work

Using Flash With Kodachrome

Fred Bond

IF YOU haven't yet added flash to your Kodachrome picture-taking repertoire, may I suggest that you will experience some new and exciting thrills when you do. Neither flash nor reflectors are absolute essentials in closeup color shooting outdoors, as good color results can usually be secured with use of flat sunlight. In fact, that is one distinct advantage color has over black and white, for the less experienced. But for every flat-lighted composition that will make a particularly good color result there are hundreds of side- and back-lighted possibilities you are passing by unless you have some means of properly lighting shadow areas, either with flash or a reflector.

By and large, flash is preferable to reflectors as it is more portable; you always have a known volume of light; you have ample light regardless of angle (which is not always true with use of reflectors); and you can use your flash anywhere, day or night.

Here are some of the more obvious ways to use flash with Kodachrome:

1. Synchronized flash, in sunlight, to fill in shadow areas in the same way you might use a reflector.
2. Synchronized flash, in sunlight, to furnish a light source nearly or equally balanced to the sun, as in lighting a back-lighted figure.
3. Synchronized, or open and shut, (bulb or time) flash, for night outdoor or indoor shots, where flash is the sole light source.
4. Synchronized, or open and shut, (bulb or time) flash where you may use existing illumination as supplementary light.

You haven't a flash gun and synchronizer? Don't let that worry you. You still have no end of possibilities with night shots, indoors or out, with a very simple battery-box gadget we will describe in a moment.

But first, let us consider some of the more simple adaptations of the four flash uses just mentioned.

1. *Synchronized flash, in sunlight, flash for supplementary light and flash used to add light to the shadow area.*

In making such shots you must, of course, use the daylight type flash bulbs (G.E. No. 21B or Wabash No. 2B or 3B) so you will have approximately the same color balance between the two light sources.

It is not practical to state categorically whether you should use a flash in the gun on the camera, or on an extension cord running from your flash gun, or both; or how far you should set the flash from the shadow area you want to fill. Such factors call for slightly different treatment with every shot. As I have said before, hard and fast rules are not as important as thought in analyzing your problem and care in the placement and handling of your equipment. (Base your exposure calculations on the bulb manufacturer's data as to *f*: stops and distance of flash from subject.)

If you care to refer to this writer's article in the June issue of CAMERA CRAFT you will find an illustration and brief description of this most simple of flash uses. In this instance three No. 21B (G.E.) bulbs were used on an extension cord plugged into the flash gun. The extension cord made it possible to get the flash closer to the subject and to place it at a better angle to the shadow area, than if used at the camera. While you are referring to that article, the bathing girl shots made with and without the use of a reflector, would have shown approximately the same results if a Wabash No. 3B bulb had been used in the flash-gun at the camera.

Remember this in using flash as a supplementary light source—disregard the flash in calculating exposure. After you have determined the stop you will use, then check your flash data to determine at which distance you must set the flash to get the desired degree of exposure at the selected aperture. For instance, let's suppose you have decided to use stop *f*:16 and the flash bulb you propose to use will give the desired degree of exposure at 9 feet from the subject with that aperture. If you set the flash at 18 feet from the subject, you cannot expect much if any result. Suppose you can't get the flash as close as 9 feet but can use it at 12 or 13 feet, then your flash will dictate the stop to use if you want appreciable effectiveness from the flash. This 50% increase in distance probably would call for 100% increase in *f*: stop, to *f*:11.

I have used these smaller *f*: stops for illustration only because such stops require the slower shutter speeds, for Kodachrome shooting, and we keep away from the problem of compensation for flash at high shutter speeds. Remember too, that as long as you are shooting at 1/25 of a second or slower, and your synchronizer is working properly, you can forget all about the "speed" of the flash—it takes care of itself; most bulbs have a burning interval or not more than 1/25 of a second, with a peak of much shorter duration.

Does Flash, as a supplementary light source, improve Kodachrome results? Yes, it certainly does on relatively closeup shots, if your composition includes any sizeable or distracting heavy shadows. Obviously, there



Figure 1. (Reproduced from a Kodachrome Transparency.)

Outdoor shot with exposure based on the illumination afforded by the flash bulb only, with sunlight being used for accent. In this black and white reproduction the hair is lost in the background, but in the color shot there is pleasing separation, with the background stepping back into its proper plane.

is no need for flash on flat-lighted sunlit subjects. But if you have progressed beyond the stage of that first irrepressible thrill that comes with capturing your picture in full, natural color, you have already commenced to experiment with other than strictly flat lighting.

Flash, with a good gun and synchronizer, and with an extension cord attachment, offers you the most versatile means of creating an endless and most exciting variety of new color compositions. You will not want to stop with the use of flash purely as a supplementary light source, but will be eager to undertake balancing flash with sunlight as shown in Figure 1. This illustrates the second simple adaptation of flash technique, previously listed.

2. *Synchronized flash, in sunlight, to furnish a light source approximately balanced to the incident sunlight.*

In Figure 1, the sun was behind and a little to the left of the figures. Time, about 2 o'clock. Exposure calculations were as follows: Meter readings were made of the areas of the figures in full sunlight—the high-lighted areas. The back-lighted portions (most of the composition, in fact) were not considered. A Wabash No. 3B flash was used near the camera, at the same low angle. Distance of the flash from the subject was determined by using the flash manufacturer's table for exposure when flash is the sole light source. Whatever sunlight was being reflected into the "back-lighted" areas of the figures was disregarded because the effective light from the flash would be several times the volume of such weak sunlight. The diaphragm indicated for a correct flash exposure was a little more than one full stop overexposure for the brilliant sunlit areas—the shoulders and the sides of faces toward the sun. In this instance this effect was desirable because it provided pleasing accents that helped overcome that flat-lighted "flash" look that is often objectionable.



Figure 2. (Reproduced from a Kodachrome Transparency.)

A typical night flash shot, indoors, with use of two flash bulbs, arranged to eliminate strong or conflicting shadows. Lights were placed to create the illusion of normal room lighting. (See Figure 3 for apparatus used.)

But, you ask, why all this seeming complexity? Why not take the shot in flat-lighted sunlight and be done with it? True, you could take such a shot in typical flat light, but few people can face a low sun without squinting or making a wry face. Besides, in flat light we would have lost the accent the sun (back- and side-lighted) gave, with a resulting roundness and solidity not possible without such simple modeling.

3. *Synchronized or open and shut flash (bulb or time) for night outdoor or indoor shots, where flash is the sole light source.*

In Figure 2 we have a typical example of such use, and in Figure 3 an illustration of the simple, home made apparatus used. (My apologies for not showing a shot of the actual making of Figure 2. This shot of the set-up was an after-thought, and the little girl model had long since retired. But this is the same set-up I assure you, no more, no less, although equipment was placed in Figure 3 so as to better illustrate what paraphernalia was employed.)

To get back to our color shot. Two Wabash No. 3 bulbs were used, one at 2 feet from the floor at right of camera, and the other 5 feet from the floor at the left and close in on the figure (light standard is just outside the picture). The light on the right was more directly in line with the camera, but at a low angle to fill in the eye, hair and chin shadows which would be cast by the light at the left, which was some 3 feet above the head.

Exposure was made open and shut, the shutter set on bulb and held open while the flash was fired by a push-button switch wired to the battery box. As this procedure is of primary interest to those of you who do not have a synchronized flash gun, some detailed description of the apparatus may suggest how you can put together an equally efficient outfit.

To prove that inexpensive home-made apparatus will produce effective results, this shot was made with tin wash pan reflectors (15c or 20c each)

and a home made battery box. The light standards are folding music stands. The pan reflectors were held on the stands with metal loops attached with stove bolts. A cheap light socket loop (the kind you fasten around a socket to hold a hanging shade) was bolted to the flange of the pan at what was center top when the pans were on the standards. The socket for the bulb hung through this loop so that the flash bulb about centered on the pan.

The battery box has eight regular outlet plugs, wired in parallel, with the circuit broken by one plug into which the push button switch cord is plugged. To be sure of ample current if and when as many as eight large flash bulbs might be fired at one time, the power source used was a 45 volt radio battery.

Since this paraphernalia can be used only on open and shut flash exposures, we do not have to be concerned with lag due to kind or length of wire used in the extensions. It must be realized that these pan reflectors are not as efficient as ones made for the purpose—they have less reflective quality and their flatter shape tends to scatter the light, with consequent loss of volume on any specific area of the subject. In using them, I gave the shot one stop more exposure than would have been correct with the best of regular reflectors made for flash or photoflood use.

So much for the gadgets. To get back to the subject of our shot, you should be told something of the color composition and the color result. Everything in the composition is in high key except the girl's hair. The chair is yellow, the robe white, walls a light grey-green, white Venetian blind (which, incidentally, acted as a good reflector) and white ceiling. Perhaps you wonder if such far away surfaces as walls and ceilings have any appreciable affect on your color result. They do. In fact, since the areas in this composition are practically all light, high keyed colors, there is a noticeable pickup, in the whites especially, of light reflected from surrounding color surfaces.

Exposure and color rendition in Kodachrome is always simplified when the brightness range of the subject is not great, whether your shots are made with flash, photoflood, or in sunlight.

The shot we have just described could be made with photofloods instead of flash, of course. But again, the model is less disturbed by the flash and is more likely to hold a pleasant, relaxed expression than if posed before such an exceptionally strong light source as photofloods in reflectors.

Before we leave this subject of ordinary night flash, remember that flash outdoors at night requires at least one full stop more exposure than indoors in the average room. On interior shots you get the benefit of all your light, as walls and ceiling reflect the scattered light back onto the subject to a considerable extent. This is not true in the average outdoor night shot.

Another less common problem, but one which has many adaptations, is illustrated by the reproduction of the color shot made in Lehman Caves National Monument, Nevada (Figure 4).

4. *Synchronized or open and shut flash, (bulb or time) using existing illumination as supplementary light.*

This shot was made with open and shut shutter exposure, set on "Time" with the flash fired by a battery box similar to that just described. The



Figure 3. Illustration showing apparatus used in making color shot reproduced as Figure 2. Reflectors and battery box are items any one can easily assemble, as these were. As indication of the reflective power of walls and ceiling in indoor flash shots, you will be interested in knowing that this black and white exposure was made with flash fired in the reflectors as you see them—no other light.

illumination in the cave was insufficient to make an exposure with models as no less than 5 minutes would have been necessary to properly expose even those surfaces directly illuminated. Although I didn't try it I doubt very much if a satisfactory picture could have been made with the cave lighting alone, as such lighting is purposely planned to give an eerie feel, and does not provide sufficient general illumination in the foreground areas, which are the principal points of interest.

The shot was made with two No. 75 (G.E.) bulbs, on type B Kodachrome, with a 2A filter. Reflectors were wider angle than one would ordinarily use for closeup shots, to give better coverage. One flash was placed to the right of the camera, about 9 feet from the models. The other was some 25 feet in front and to the left, hidden behind one of the formations.

After the flash was made, the lens was covered while the models moved out of range of the camera, and then the exposure was continued for three minutes to register the Cave lighting. The principal purpose of this secondary exposure was to register the distant areas and formations which



Figure 4. (Reproduced from a Kodachrome Transparency.)

A flash exposure combined with the indirect lighting in the cave. Foreground was lighted by flash only; the surfaces beyond 25 feet got practically all their exposure from the lights in the cave. To register these surfaces required a three minute exposure.

the flash didn't or couldn't reach. If this secondary exposure hadn't been made all areas or surfaces beyond the effective carrying power of the flash would appear as black holes in the composition.

As you can readily appreciate, this Cave shot required more exposure (larger f: stop) than the flash manufacturer's data indicated, for there is less reflective quality in these scattered, irregularly surfaced formations than one would find in indoor shots where walls and ceilings serve as good reflectors.

One adaptation of this flash and secondary light combination is in the use of house lights such as reading lamps, fireplace light, and so on. In such instances it is assumed, of course, that the secondary light is of low intensity—a 60 watt bulb in a table lamp, for example—and that this secondary light is placed where the flash hasn't already given the area more exposure than the secondary light can register. You would proceed as in the Cave shot—leave the shutter open for additional exposure by the secondary light source for such time as required to give the effect you desire.

The foregoing is by no means a "treatise" on flash photography with

Kodachrome. I hope I have suggested ideas that will pique your interest and stimulate your imagination. From here on the fun and excitement is all yours.

No tables as to exposure calculations, distances of flash from the subject nor other technical data is included in this article because you can get more detailed information from both the film and flash bulb manufacturers. Besides, with constant changes and improvements in materials, any data I could give you might become obsolete before these words appear in print.

In planning any flash use, keep these things in mind:

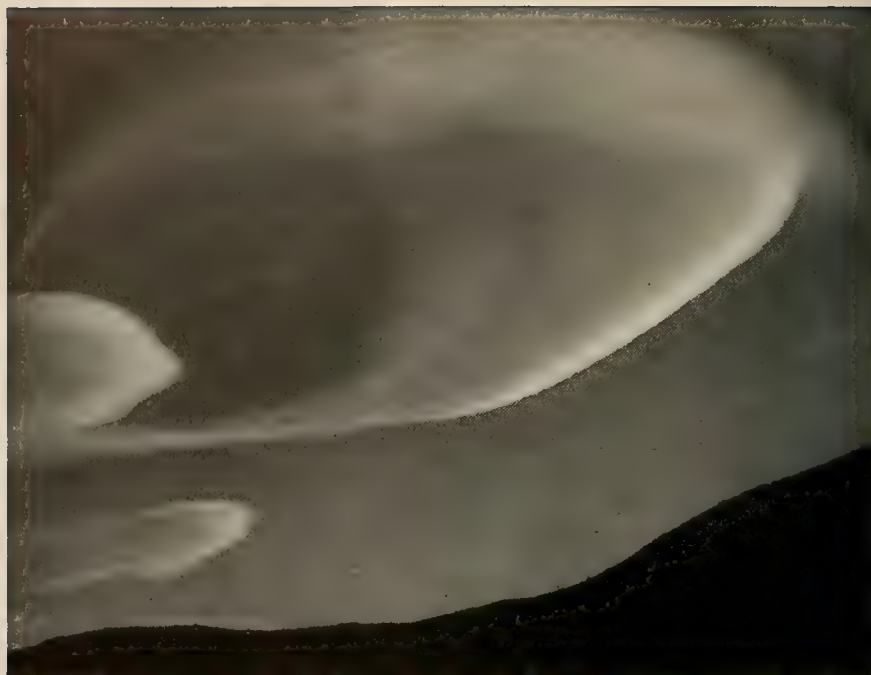
1. Be sure your batteries are fresh.
 2. Clean reflector surfaces.
 3. Be sure you are using the right size bulb for the shot.
 4. Always use a lens shade, the deeper the better.
 5. Do not overexpose your flash shots.
 6. Be sure your reflectors are properly "aimed" at the areas you want covered.
 7. Avoid too much flat lighting. Use two bulbs when you can on night shots—one as principal light source (imagine it is the sun) and the other to one side, to fill in the shadow areas, as in synchronized flash in sunlight.
 8. Check all wires and contacts to be sure your flash is going to fire when you press the button.
 9. Always use the blue bulbs in combination with daylight.
- Try some kind of flash shot soon—you have a new thrill awaiting you!

More About Lantern Slides

Jack Wright

THIS article is designed to supplement a series on lantern slide making written for CAMERA CRAFT and appearing in October, November and December, 1940. It is written to bring to the attention of amateur photographers two new developments in lantern slide making: (1) the new direct positive panchromatic film recently brought out by the Eastman company and coming in 35 millimeter and bantam sizes, and (2) the method of coloring slides using the Develochrome colors manufactured by the Fink Roselieve Company.

Kodak direct positive panchromatic film is especially designed for lantern slides and fulfills its purpose admirably; being fast, fine-grained and, when correctly processed, very brilliant. In taking pictures with this



"Turning Back"

Sid Pratt, Los Angeles, Calif.

19th Annual All-America Salon

film by daylight a Weston speed of 50 or a G.E. speed of 80 is recommended. With tungsten lights 40 Weston or 64 G.E. is correct. The average exposure in full sunlight is 1/100 at f:11. A more elaborate table of exposures is packed with the film and is as follows:

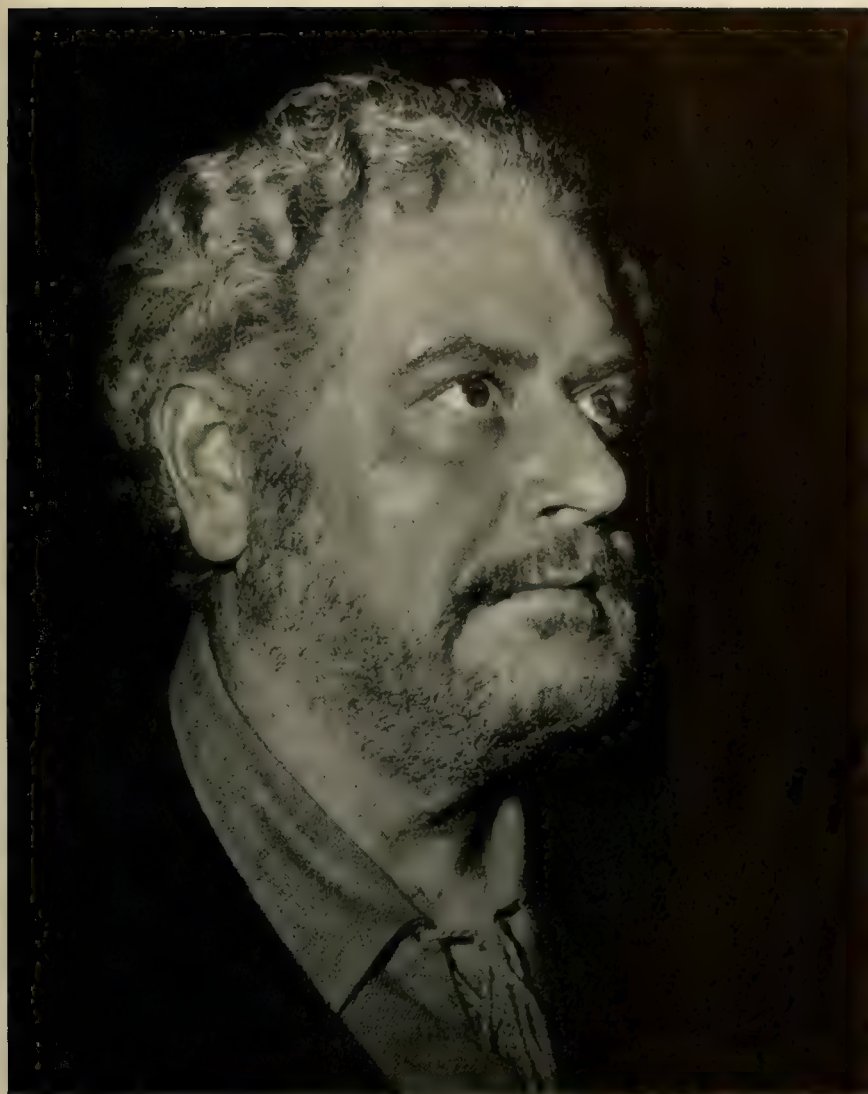
Lens Apertures at 1/100 Second

Lighting	Basic Exposures for Average Subjects	Light- Colored Subjects	Dark- Colored Subjects	Back- Lighted Subjects
Bright, direct sunlight	f:11	f:8-f:16	f:8-f:11	f:5.6
Weak, hazy sun; no distinct shadows	f:8	f:8-f:11	f:5.6-f:8	—
Sky overcast, cloudy but bright, or open shade on bright day	f:5.6	f:5.6-f:8	f:4-f:5.6	—
In shade on bright day	f:4	f:4-f:5.6	f:3.5	—

Five solutions are needed to process Kodak panchromatic direct positive film. They are: (1) first developer; (2) hardener; (3) bleach; (4) clearing bath; (5) redeveloper. Chemicals to make one quart of each of these solutions are sold in a kit put out by the Eastman Company. Directions for mixing them are printed on each bottle.

Each solution, as mixed, should be placed in a bottle numbered from 1 to 5, to correspond with the numbers given above.

There are eight steps in processing the film: (1) first development; (2) hardening; (3) bleaching; (4) clearing; (5) redeveloping; (6) rinsing in water; (7) fixing; (8) washing.



"Alan Hale"

Carlyle Blackwell, Jr., No. Hollywood, Calif.

19th Annual All-America Salon

All the operations except the fixing and washing require that the film be kept in complete darkness. An ordinary developing tank and reel may be used. Solutions should be kept as near 70 as possible, particularly in the case of the first developer. The two most important steps in making high quality slides with direct positive film are the exposure, which should be as nearly correct as possible, and the first development, which should be exactly 11 minutes at 70 degrees. Overdevelopment decreases the maximum density of the positive, with resultant loss of highlight detail. Underdevelopment gives fogged highlights.

Before starting to develop a roll of film, place the five numbered bottles of solutions in order, ready to hand. Pour the first developer into the tank. Turn off the lights. Remove the film from the camera and wind it on the reel of the tank. Put the reel into the tank, put on the cover, turn on the lights and agitate for 30 seconds. The film stays in the first developer 11 minutes. Agitate the first five seconds of every minute.

While the film is getting its first development place the empty bottle for solution 1 ready, with a funnel in the bottle to facilitate pouring in the dark. At the end of 11 minutes turn off the lights, remove the cover of the tank and pour the first developer back into its bottle. The reason for removing the cover of the tank and not pouring through the slot is so the solution will run off rapidly and avoid streaks.

Allow the reel to drain for 10 seconds, then pour in solution 2—the hardener. Put the cover on the tank, turn on the lights and agitate as before. The film stays in the hardener five minutes. At the end of that time turn off the lights, remove the top of the tank, pour solution 2 back into its bottle. Drain the film for 10 seconds, then pour in solution 3—the bleach. Turn on lights, agitate as before, and leave the film in the bleach three minutes.

At the end of that time turn off the lights, remove the cover of the film tank, pour the bleach back into its bottle and allow the film to drain for 10 seconds. Then pour in solution 4—the clearing bath. Put the lid on the tank, turn on the lights and agitate as before. The film remains in this solution two minutes. At the end of that time turn off the lights, remove the tank cover. Pour solution back in its bottle and drain the film 10 seconds. Then pour in solution 5—the redeveloper. Put the lid on the tank, turn on the lights and agitate as before.

The film should stay in the redeveloper four minutes. The redeveloper should then be poured back into its bottle and the tank filled with water. After two minutes of continuous agitation the water is poured off and replaced with acid fixing bath. After being fixed five minutes in fresh hypo the film is washed for 10 minutes in running water. It is then wiped with a soft sponge and hung in a clean, dust free place to dry.

Part of the non-halation backing is removed during redevelopment, part during rinsing and part during the washing. If any remains the film should be bathed in a 5 per cent solution of sodium sulfite. Wash the film again after this treatment.

The completed positives should be masked and mounted in the usual way. (See pages 618 and 619, *CAMERA CRAFT*, December, 1940.)

Slides made by the above method, as well as other slides, may be colored a wide variety of hues by using Develochrome. The advantages of



"Pattern in Silver"

B. W. LeRoy, Portland, Ore.

19th Annual All-America Salon

this process are its simplicity, the ability to duplicate colors previously obtained and the very wide variety of tints and hues which may be secured.

The Develochrome colors come in red, yellow, blue, snow blue, sea green and sepia. By different combinations of these almost any color of the spectrum may be secured.

For coloring slides with Develochrome, buy bottles of whatever colors are desired and a can of the Develochrome developer. The latter comes divided into two parts—powder “A” and powder “B.” Dissolve 20 grams or 300 grains of powder “A” in 250 cc. or $8\frac{1}{4}$ ozs. of water at 125 degrees. Dissolve 10 grams or 150 grains of powder “B” in separate bottle in 250 cc. or $8\frac{1}{4}$ ozs. of cold water.

Just before you start to work, mix these two solutions together. To each 250 cc. of the developer add 10 cc. of whatever Develochrome color you desire.

The various methods of exposing lantern slides were described on pages 494-497 of CAMERA CRAFT for October, 1940. The exposure time for Develochrome developer is about the same as for other developers and may be easily arrived at by making test slides. Developing time is about two minutes.

After being exposed and developed, the slide should be rinsed in water and then fixed from five to 10 minutes in plain hypo. It is important that no acid be added to the fixing bath for Develochrome slides. After fixation, wash the slide for 15 minutes in cool, running water, wipe with viscose sponge and put in a cool, dustless place to dry.

One of the most satisfactory uses of Develochrome is for redeveloping black and white slides to give them color. This method works particularly well with slides made with Eastman direct positive film. One advantage of this process is that it can be carried on in full light.

Direct positive or other black and white slides to be colored with Develochrome should be fairly dense and full-bodied. The first step is to soak the slide for a few minutes in cold water. It is then bleached in a white tray containing the following solution:

Cold water	500 cc.	or 16 ozs.
Potassium Ferricyanide	14 grams or $\frac{1}{2}$ oz.	
Potassium Bromide	14 grams or $\frac{1}{2}$ oz.	

Leave the slide in this bleach until the black image entirely disappears. This will take from one to one and a half minutes. The slide is then washed for one minute in a 2 per cent solution of sodium sulphite. It is next rinsed for one minute in clear water and then placed in Develochrome developer, mixed as previously described, and redeveloped for from two to four minutes, or until the desired tint is secured. It is then washed for 15 minutes in running water, sponged off and set away to dry. Note that fixation of the redeveloped slide is not necessary. Also note that under no circumstances should a slide which has been treated with Develochrome be washed more than one half hour, or some of the brilliance of the color will be lost.

It is also worth noting that the color for a particular slide should be selected with some care; flowers go well in bright red or yellow, landscapes in sepia, seascapes and snow in blue, etc., etc. The possible variations are many and satisfying.

Joe Foto Sells A P r i n t

Nestor Barrett

JOE FOTO is a skeptic. "I heard your lecture at the camera club last night. I don't believe it." What was it Joe did not believe? "That anyone can sell their photographs. I can't sell mine. Been trying for years, too. It's all bunk. I've read a hundred magazine articles. 8 x 10 inch glossy—white captions inclose return postage. I know all that stuff; follow it too. What good does it do. They don't buy my photographs."

Would Joe like some proof? Did Joe have his car and camera handy? Joe would and did.

Did Joe notice anything worth photographing as he drove along this warm Summer countryside?

"What is there to photograph here? It's just like I always say—who's going to buy a picture of a lot of sick prune trees, a broken down picket fence, some thistles and a sticky asphalt pavement? You've got to travel to some big city, or a national park, or South America, or be a war correspondent to get an editor to look at your stuff nowadays. And even if this was a beautiful landscape, which it isn't, you couldn't get a decent picture of it because the confounded electric power poles are in the way."

Sometimes editors of agricultural magazines were interested in pictures of prune trees. But speaking of the ubiquitous power poles, what were those shiny things nailed on the last group we passed?

"Oh that's just some new kind of a gadget the power company's adopted to make the pole easier to see at night. Seems they tried other things which didn't work very well. They used to paint the lower ends white. But the creosote underneath soon came through and ruined the paint job. Now they are using those three silver colored metal strips. Power company man was telling me all about it. Clever idea all right. But as I was saying about the editors—"

Had Joe ever seen anything in the papers or magazines about the safety strips?

"No, I don't think I have. I buy most of the mechanical magazines too. Now, for Pete's sake, I hope you don't expect me to stop this car and

get out there and waste a film on three strips of metal nailed on a power pole. Of all the ridiculous—.”

Did not Joe think that traffic safety was a mighty important matter? Did it not concern every man, woman and child in the country? What wider appeal did a man need in a photograph he wanted to sell? Was this not the latest development in that field produced by the engineering department of a great public utility?

“If you say so I will stop and shoot one of those things, but remember, if the film is wasted you owe me a good cigar. I can’t see how any editor is going to look long enough at the picture of a power pole to even know it has safety strips on it, let alone pay out cash money for the privilege of printing it.”

Perhaps if Joe would add something else to the picture to catch the editor’s eye he might stop long enough to find out what the picture was about. No need for Joe to shoot it now, but some day when he was out riding with his wife or one of his daughters he might pose them along side the pole.

“Yeah, I know all about that human interest stuff. Got to have people or hands in every picture. But I never put much stock in it. However, since this is your idea, and not mine, I’ll bring the little woman by here next Sunday and get this shot.”

The door bell is ringing a week later. It is Joe Foto.

“I brought that picture over to show you. Made an 8 x 10 glossy like you said. What do you think of it.”

A very good start. But did Joe remember what that lecturer had said at the convention last year? The one who had been editor of the famous picture magazine. If memory served he had said that sixty per cent of the pictures sent his magazine had been automatically rejected because of unsharp foregrounds. Joe’s foreground did seem a little fuzzy.

“Yes I remember him saying that, but in this picture the piece of road near the camera just couldn’t help being out of focus. It was so close to the camera there was not enough depth of focus at that stop to get it sharp.”

Probably Joe did not need the foreground in this picture anyway. But in pictures where it was needed he should stop down to his smallest stop if necessary. Modern magazines demanded needle sharp pictures. But getting back to this one, how about doing a little trimming.

“Well now that you mention it, I think you got something there. Yes I see what you mean. No need to include that house at the side of the road, or the car parked over to the left. I’ll try blowing it up to 8 x 10 so that the missus and the pole fill the whole picture space. That’ll concentrate attention on the point of interest—the safety strips.”

Very good. Some editors would trim even farther and just show the strips and Mrs. Foto’s hands. But no need for Joe to deprive the editor of all the fun.

“One more thing. What about the caption which goes with this photo? Don’t I have to write out the story and send it with the picture.”

Absolutely. All pictures should be accompanied by complete captions. Some people paste them right to the back of the photograph. Keeps them both together with no danger of separation. And be sure the caption tells



"The Duke and the Duchess"

T. J. Moore, Ferguson, Mo.

19th Annual All-America Salon

the whole story. Did Joe remember that rhyme the journalism students used to learn back in the University?

"I had six honest serving men,

"They taught me all I knew,

"Their names were WHAT and WHY and WHEN

"And HOW and WHERE and WHO."

"Now as I understand it, all I got to do is put this brainstorm of yours in an envelope with some cardboard to stiffen it, send it off to some magazine like World Mechanics or Popular Invention and wait for the dough to roll in."

Just so. But don't forget Joe to inclose return postage, just in case. Always a good idea to be prepared.

It is the phone ringing. Joe Foto is on the line.

"Say you big so and so, I guess the lunch is on me this time. But it's worth it. Just got a check in the mail for \$3.00 for that picture. Boy, am I ambitious. I'm going out Sunday again and shoot a dozen like this one. Three times twelve is \$36.00. Why I'll be able to buy that new camera in a couple of weeks and—."

Not so fast Joe. Be calm. You haven't been invited to join the staff of LIFE yet. Keep plugging. Get them sharp. Concentrate. Put in the human interest. Make rich glossy prints. You'll get there some day.

Design For A Photographic Sink

Henry Weller, Jr.

THAT the well-equipped darkroom should have a real photographic sink in which all processing operations may be conducted is a foregone conclusion. If you do not have a sink at all, or perhaps are working in a cellar darkroom and using a sink originally installed for cellar use, you may have been annoyed at that fact that its design just doesn't fit into any of your photographic operations. May we present our own design for a low cost, easily constructed model especially designed for photographic processing and which has not been subject to the whims of the designers of plumbing fixtures. It is a permanent installation, and only the grossest of misuse could impare it or reduce its useful life.

Our first concern is the determination of the amount of galvanized iron required, which is the most satisfactory material to use. Too heavy a gauge (thickness) is not necessary. First measure the available space; make the sink large so that all operations can be easily performed in it. The space occupied by the model shown in Figure 1 is 22 by 50 inches, the sink being shaped to fit around a pipe at the right (covered by oilcloth). Figure 2 (a) is a rough outline but all that is necessary as using it (b) is developed from which we can readily determine the amount of sheet metal required. Other requirements will be different than those resulting in the dimensions shown, but the size of print to be made should be considered; for instance: this sink will accommodate three 11 by 14 inch trays, but 16 by 20 prints could hardly be made as the minimum requisite of three trays will not be accommodated.

From (b) Figure 2, we see that a piece of metal 35 by 64 inches is needed to make the 22 by 50 sink, six inches deep and with a one inch lip turned down along three top edges. This tends to add strength and rigidity to the side walls. To shape the sink, bend along all dashed lines and cut along all solid lines.

The metal can be obtained from the tinsmith who can do the bending on his machine. This will result in a neat, straight edge. He can also turn down the lip along the indicated top edges. To aid him, lay out Figure 2 (b) on the sheet metal with a wax crayon. A piece of copper pipe can be soldered into the bottom to which a plumber can make the sewer connection.

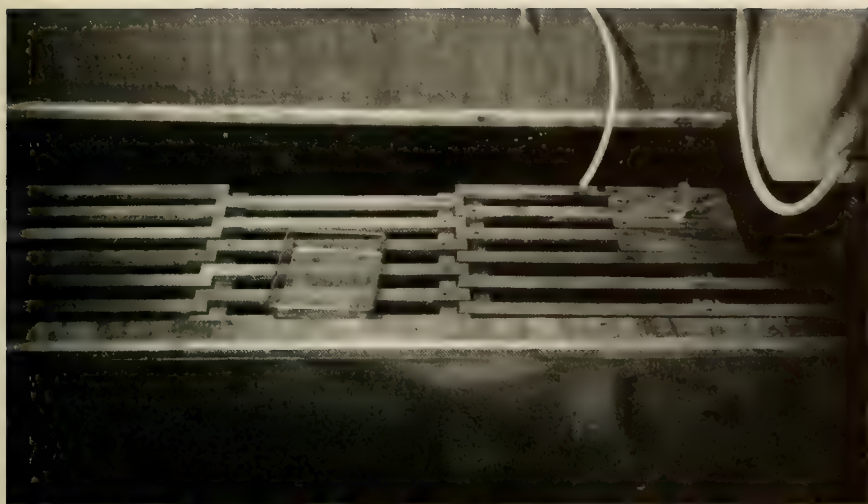


Figure 1.

Give two coats of red lead, inside and out, and while drying go on with the construction of either the false bottom, the need of which will become apparent later, or the preparation of the support for the sink.

It has been our experience in the past to observe that most sinks of this type have rusted through at the bottom even when covered with some acid-proof paint. The reason for this is that the placing of and moving about of trays and other utensils gives rise to sufficient mechanical abrasion of the paint as to cause small breaks which allow water to come into contact with the metal. Eventually the metal rusts through. The paint has served its purpose, but it is fragile and never was intended to take the treatment to which it was subjected. Therefore we are incorporating into our design a false bottom, i.e. a bottom suspended above the actual sink bottom, but one on which the actual work is done. This false bottom is the reason for the guaranteed longevity of the sink.

The best wood for the false bottom is redwood. Cut slats one inch wide from $\frac{3}{8}$ inch stock. Figure 3 shows the method of suspension and construction of the working bottom. Referring to (b), make three, or any convenient number, or racks of the slats, with the one inch pieces alternating in each rack. Use similar pieces along their edges to hold them together. Copper nails are suggested. The round members are lengths of $\frac{1}{2}$ inch dowling on which the racks rest. Figure 3 (a) shows how rack #2 will rest on the dowling and how the end pieces keep the racks from sliding off the dowling. Racks #1 and #3 are similar, but the slats alternate and fit between those of #2. The ends of the slats where two racks rest on the dowling, extend no further than the dowl as shown by (a). Leave plenty of space between slats so that each rack will easily fit into place, at least $1\frac{1}{4}$ inches.

The working bottom does not rest on the bottom proper nor is it to touch the side walls of the sink either. At about $\frac{5}{8}$ or $\frac{3}{4}$ inch from the

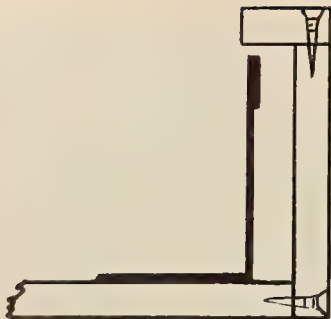


Figure IV.

bottom, drill holes in the front and back walls to take screws which will engage the ends of the dowling and thereby hold up the working bottom. We do nothing to prevent the sink from leaking as it never fills up to the level of the holes, even if a large tray is suddenly emptied. As much as twelve quarts could be poured simultaneously into the sink and even then it would not fill up as the liquid rapidly drains. The redwood slats are unpainted.

The sink is placed on a bench or table at a convenient height for the worker. It is a good plan to have the sink tilted slightly, if the drain is at one end, to favor drainage. There is no lip on the rear wall so that by means of a piece of molding and wood screws, the back of the sink may be held flush against the rear wall which is preferably of wood. This will prevent water from splashing behind the sink. By using a wooden wall behind the sink, it is easier to suspend safelights and other apparatus. The front protecting board is of heavy one inch stock, and is screwed into the base or table on which the sink rests by means of long wood screws. The reason for the heavy stock is that one invariably leans on the front board while critically examining his latest salon effort in the wet state. In order to protect the top edge of the sink, another piece is attached to the front board as shown by Figure 4. Have this extend over the front edge of the sink $\frac{1}{4}$ inch. This will not only add to one's comfort while leaning but amply protect the sink.

When we last left the sink proper, the second of two coats of red lead was drying. Allow a few days to dry, according to prevailing atmospheric conditions, as we want a firm foundation for the finished surface. There are a number of black acid-proof paints on the market and they may be used over the red lead, but we prefer to recommend oxygenated asphalt, obtainable from Standard Oil Company. The application of the paint is the usual painting operation, but the application of the asphalt is a little more involved and will be herewith discussed.

Upon opening the can (get the gallon size) one is confronted by a hard, uninviting, black mass. Heat the can until the asphalt liquefies (about 200° F.) and, using an old brush slop onto the entire interior of the sink. No effort should be made to "paint" as this is impossible because soon after the brush touches the sink, the asphalt will solidify. So just apply it till it is about $\frac{1}{8}$ inch thick. It will be uneven and lumpy of

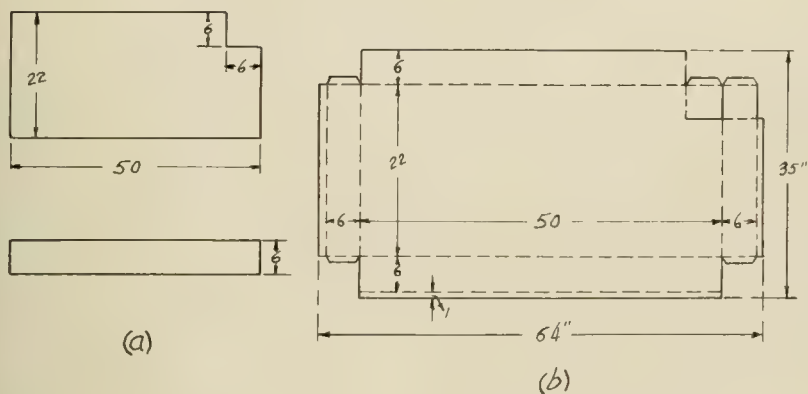


Fig. II

not to scale

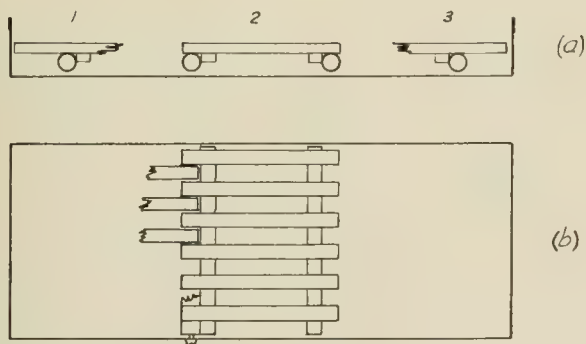


Fig. III

surface at this stage. Get it on however you can being concerned not with how it looks but with your effort to cover completely *every* bit of the surface. After a sufficient coat is applied, use a blow torch or a Bunsen burner attached with a long hose, and, playing the flame gingerly over the rough surface, you will observe that it smooths out and hardens with a mirror-like glossy black surface. Do not hold the flame too long in one spot, as we do not want the coating to run. Keep the flame moving.

While the asphalt is superior to the paints as to taking mechanical abuse, don't tempt the gods by banging and scraping trays against the sides



"Solitude"

Gustav Anderson, Amityville, N. Y.

19th Annual All-America Salon

of the sink. Especially do not permit anything to rest against the asphalted surface for any great length of time, for though firm, the surface is always a bit tacky. Anything left overnight, in contact with the surface, will adhere and when pulled away, will in all probability take the asphalt with it from the spot at which contact was made. Should this happen, it is a simple matter to re-heat the left-over asphalt and to cover the denuded spot. Having the red undercoating makes it easier to see any spot at which the asphalt has been removed and also to make sure every part of the sink has been covered.

Plastic Binding Of Prints

Al Bernsohn

THIRTY large prints, packed neatly, permanently into a book form hardly any thicker than thirty sheets of paper as they come in the box. This is how some of the professional studios now prepare long series of photographs. Many amateurs might well emulate them in making compact, attractive assemblies of those vacation pictures, or the best shots of Junior taken during the year.

It's done by plastic binding.

The ingenious Chicago photographer, Fred G. Korth, uses this type of binding, his artistic sense and his technical skill to prepare sales presentations, Christmas presents and other sets of prints in permanent form. First, to counteract any tendency of the prints to curl and to minimize waste space, Mr. Korth dry mounts the prints to go into his books back to back. The order of the prints is arranged so that harmonious prints will be on opposite pages. Thus, two prints running parallel to the bound edge must be so inserted that the bound edge is the top of one and the base of the other to avoid the necessity of having to reverse the book to look at the prints right side up.

If white margins are necessary on some of the sides (and they're not recommended because they catch finger prints too easily) they should be kept on as few of the sides of the print as possible, Mr. Korth advises. Therefore they should never be on the outer (open) edge of the picture. This is where the picture will suffer the greatest amount of wear. The inner (bound) edge is a much more practical one for a white margin. The photographer also suggests that if only the top of the left-hand photograph carries a white margin, the bottom of the right-hand one should also carry such a white margin. This saves the difficult task of matching the two at the same edge. And an attractive pattern results from the top of the left picture, bound edge of both and bottom of the right picture carrying white margins.

Once prints are arranged in order and dry-mounted back to back they're cropped to the identical size. An 11 x 14 with quarter-inch margin crops down to slightly over 10 x 13 in most cases.



Preparing to mount prints, back to back.

Cover or first-page prints of Mr. Korth's books are frequently photo-montages representing the nature of the prints in the book with a black base on which a suitable title is printed in white. He prefers to let his prints speak for themselves, but if the photographer wishes to insert intermediate pages either plain or carrying a message, he may do so at no greater cost. This saves him the necessity of balancing opposite prints too.

Now plastic binding isn't the only kind that can be used for this sort of work, but it's the most practicable because it's least expensive, it may be ordered in as small a quantity as you wish, it's attractive and colorful and quite permanent. Plastic Binding Corporation controls this field. It's principal sales office is 732 South Sherman Street, Chicago. There are 128 licensees of this organization scattered around the country. The main office assures us it will be glad to send the name of the nearest one to anyone inquiring about it.

In the binding process a row of rectangular holes is punched along the edge to be bound and a cylindrically shaped sheet of plastic, like a comb with elongated teeth curled into a tube, is automatically attached to the group of pages. One "tooth" or "prong" penetrates each hole. These backs permit the books to lie open perfectly flat. The material, a vinyl resin, won't shrink or burn and it's difficult to break.

Stacks of pages from two sheets to $1\frac{1}{8}$ inches may be bound in this manner. Page sizes may range from those requiring but two "teeth" to 20 inches on the binding edge. If the pages are to be still larger, two or more lengths of plastic binder may be used.

Colors in which it may be obtained are: dark blue, pale blue, violet, maroon, red, orange, yellow, green, buff, black, white, transparent clear and transparent amber.

In addition to the binding backs, Mr. Korth uses covers made of the same material to protect the photographic paper. These come in the same colors as the bindings and may be used in either matching or contrasting



Three books of prints, plastic bound.

shades. Sheets come in sizes up to 20 x 50 inches, and weights run as thin as 10 guage (10/1,000ths of an inch).

This type of plastic binding isn't confined to permanent binding alone. A loose-leaf form of it is also available from the same sources. The principal difference between this and the permanent form is the holes cut into the binding edge are open at the side with a narrower neck holding the pages in place. Professional photographers are using this form of binding to make sales presentations and keep records of certain models, file prints made for certain accounts, etc., in place. Underwood & Underwood, Kaufmann & Fabry and others have found plastic bindings to be a neat, inexpensive method of keeping their print files in order.

A new usage of the vinyl plastics is being developed now and should be available to the public by late Fall. It's the perfectly clear lamination. The laminating material works like very large sheets of Scotch tape without that material's tendency to discolor work. Under the trade name, "Lamofilm," rolls up to 30 inches in width will be manufactured. Simple machinery will be used to apply this to paper without tearing and wrinkles. It'll be an attractive means of protecting prints to be hung or handled as though they were under glass. The material doesn't rely on heat for application, just pressure, and it doesn't tend to curl the work to which it is laminated. The manufacturers, International Plastic Corporation (associated with Plastic Binding Corporation), state that this "preservative" film will eliminate many hitherto difficult photo print problems.

Drama In Close-Ups

William H. Abbenseth

BACK in the diaper days of the movie industry the cameraman may have been burdened with other worries—but not with the problem of camera position. His camera was simply placed far enough away from the set to frame the entire area. He was then ready for anything that might happen. Whether it happened at one end of the set or another mattered not—the action was never out of frame. Thus the camera remained, rigidly fixed, until all the scenes on that set had been filmed. The procedure was then repeated on the next set.

The resulting movie was a continuous succession of long-shot scenes—the scale of the action being about the same as in a stage play viewed from a rear seat in the gallery. Indeed, the audience might just as well have been seeing stage play, for that is what the early-day movie was intentionally imitating. Movie makers were yet to awaken to the fact that they were working in an entirely new medium.

The first real breakaway from stage technique came with the “discovery” of the close-up—which blazed the trail for many other progressive innovations. Today the motion picture can boast a highly developed technique of its own.

Many of the modern methods of film production are unfortunately beyond the limitations imposed on most amateurs. This is certainly not true of the close-up, which requires little or nothing in the way of accessories. Yet, for all its importance in picture structure, and in spite of the simplicity of shooting the close-up, it is greatly neglected in the amateur field. This neglect is perhaps partly due to misconception as to just what the close-up is, as well as to what it can be made to do.

Often enough the close-up is incorrectly considered in terms of camera *distance*. Let us demonstrate with an imaginary shot—pointing the camera at a person's foot. (To some people the close-up is always a large-sized head. We choose a foot to emphasize that there are practically no limitations—anatomic or otherwise—in the use of the close-up.) Getting back to the shooting, we move



Enlargement from 16 mm. frame of the picture "More Than Shelter," recently completed by the author.

in with the camera to the point where the foot about fills the camera frame—and we have a close-up. But suppose a fly alights on that foot and we decide to make a shot of the fly from that same camera position. The camera distance is still very short, but we are obviously in a long-shot position for the fly (unless, of course, we change lenses and use a long focal length to bring the fly up close). It is camera *frame*, then—or size of image—and not camera distance, that makes a close-up.

The close-up can be made to serve many useful purposes. Its more obvious function is to provide emphasis. Suppose, for example, we want to establish the point that "Father" is angry. In a long shot the fact that Father *looks* angry is apt to be completely missed by the audience (particularly if it happens to be 8 mm. film, where small detail is often lacking in clarity). To clearly make our point Father would have to *act* angry—by use of exaggerated gestures. Even then, the action might be misinterpreted as an expression of an entirely different emotion or idea. Moreover, the audience might not even watch Father's actions if there is something, or someone, else in the scene to divert attention. All of these complications are effectively eliminated—and the point more emphatically dramatized—with a close-up. Father's anger may be expressed as subtly as you please—if it's *big* the audience can't help getting it!

Somewhat less obviously, we might make our point without showing Father's face. A close-up of his hand, slowly closing into a tightly clenched fist, could very effectively establish Father's anger. This device is particularly useful if

Father doesn't happen to be a good actor—the clenched fist is less likely to look "corny" than an inept facial expression. Besides, the picture is much more enjoyable to the audience when something is left to their imagination.

The close-up is especially useful to the amateur movie maker from another standpoint. Let us assume that a retake of the clenched fist is needed, and Father is no longer available. We simply use the hand of another person—and the audience is none the wiser. This form of "trickery" has fascinating, and almost limitless, possibilities. Pudovkin, in his book on film technique, observed that it is quite possible to create a "filmic" man from ten different individuals by means of ten close-up shots, even though some of the ten might be women!

No less fascinating is the manner in which the close-up can be used to obtain effects not otherwise possible when working on a modest-sized budget. A sequence in my housing film, "More Than Shelter," will serve as an illustration. The object was to present a short dramatization of the fire hazards existent among slum dwellings. On a Hollywood budget this would call for very realistic scenes of burning buildings, fire apparatus racing through the streets, and other expensive fire action shots. The alternative was to create a mental picture of all this for the audience, by suggestion. It was done with a very simple plot involving a mother, her young child, and the child's doll. The scene was a housekeeping room in a slum dwelling. Roughly, the sequence went something like this:

The mother is drying baby clothes on an improvised clothes line that hangs over a gas plate. In another part of the room is the child in a play-pen. The child is fretful—mother brings a doll over to the play-pen for the child to play with. The mother remains there, playing with the child. Meanwhile one of the garments on the clothesline has caught fire (mother had accidentally let it fall close to the burner of the gas plate when she was handling the clothes). The action cuts back and forth from fire to play-pen where the mother is still trying to get the child interested in the doll. The fire quickly spreads to the nearby window curtain. Back again at the play-pen—flashes of light are simulating the flare of the flames. Suddenly aware of the fire, mother drops the doll on the floor. A blinding flash of light fills the screen (three frames of transparent film). Attention now centers on the doll lying on the floor. Flashes of light, of increasing intensity, play upon the doll—revealing the rapid spread of the fire. There is a short shot of flames—then a close-up of a fire alarm box, with a hand breaking the glass and ringing the alarm. The action then cuts back and forth from doll to scenes of flames and smoke. The final scene is that of the charred remains of the doll.

Some exciting long-shots of flames and smoke, which I happened upon one lucky day, no doubt did much to make this sequence convincing. But human appeal, and dramatic effect, was obtained almost entirely by use of close-ups.

As another example, suppose we wanted to dramatize the story of a man committing suicide by jumping off the roof of a tall building. A realistic treatment could certainly make this story tremendously exciting. But let us see what can be done along more imaginative lines. Again taking advantage of the close-up we might dramatize the story along the lines of this sketchy scenario:

1. A very tall building. Starting from the street, the camera slowly pans up the front of the building. The scene is cut just before the top of the building is reached.

2. **MID-SHOT.** The roof of the building—a man is standing motionless on the ledge. A front effect of the roof is preferable, with the man facing the camera. (Very likely this effect could be obtained in a number of ways that would involve no great risk and no extraordinary facilities. However, it is the sort of thing that is best worked out on location rather than on paper.)

3. **CLOSE-UP.** The man's face. His expression is grim rather than frightened. Without change of expression he lowers his eyes (as if looking down toward street).

4. **LONG SHOT.** The street far below (as seen by man).

5. **CLOSE-UP.** A woman's face. She is looking upward, with a puzzled expression (as if straining to see whether it really is a man up there on the roof).

6. **SEMI-CLOSE-UP.** The man on roof, facing camera. Only the upper part of his body is seen. He moves very deliberately a step nearer the camera.

7. **CLOSE-UP.** Again the woman's face—now she gasps with horror in sudden realization of the man's purpose.

8. **SEMI-CLOSE-UP.** Again the man on roof, facing camera as in scene #6). Now he takes another deliberate step nearer the camera.

9. **LONG SHOT.** The street far below (as in scene #4).

10. **CLOSE-UP.** Again the woman's face—her eyes still fixed on the man on the roof. Now her tightly clenched hand is tensely held in front of her open mouth. She looks as if she was trying desperately to scream and yet was unable to get the sound out of her mouth. She gives a sudden agonized start.

11. **MID-SHOT.** Again the roof (as in scene #2). The man is no longer here.

12. **CLOSE-UP.** Again the woman's face (exactly as we left her in scene #10). Now her eyes are following the movement of the falling man, from roof to ground. She gives a quick start (as his body hits the ground), her eyes close, and she limply falls down out of the picture.

In this treatment of the story practically all of the action is conveyed by suggestion, with use of the woman's face in close-up. With adequate acting, and skillful cutting, the audience could actually be made to "see" the body falling from the roof. Moreover, they would not be "seeing" a dummy—as today's sophisticated audience would see it if realism had been attempted.

If I have concentrated on the heavy side in illustrating my point it is incidental. The close-up is just as applicable—and no less effective—in the development of comedy. Indeed, it is difficult to imagine any type of film that could not be improved with close-ups. The simple recording of baby's first steps can become a stirring "story," instead of a mere record, by judicious use of the close-up. In one way or another the close-up opens up new fields for the amateur movie maker. More than that, it stimulates a fresh approach to story telling methods.

Shooting the close-up is by no means complicated. Parallax must be taken into consideration, and compensated for in the view finder—unless you happen to be one of the fortunate few with a camera having a reflex view finder. It is advisable to stop down the lens more than customary for a long shot, for there is considerably less depth of focus with the camera close to the subject. A lens of fairly long focal length is desirable, but not indispensable. A supplementary lens will also do the trick—as will a movie titler for extreme close-ups. Either involves no great expenditure, and will prove to be an excellent investment. When you make use of the close-up in your pictures you are making better pictures.



"Crescendo"

Sydney Hut, New York, N.Y.

First Award—Advanced Class

★ This picture has achieved a rather remarkable success this year, having been hung in a large number of salons and having received a first award in the American Photography Annual Competition as well.

We suspect that Mr. Hut is one of those picture-wise photographers who have trained themselves to see and instantly appreciate a picture possibility no matter how unexpected, it may pop up. In all likelihood this picture was found by browsing about in rather unpromising territory with the eye and mind alert for some bit of material that would swing together to form an interesting arrangement. And that is about all there is to this picture. A rhythmic pattern which increases in emphasis from left to right. The composition is a bit unusual in that the main emphasis is at the extreme right of the print. We are not disturbed by that, however, since the two minor echoes of the dominant horn balance things up in the remainder of the picture and because there is enough space to the right of the bell of the bigger horn to let the eye remain comfortably within the picture space. Notice that while the theme here is the repetition of almost identical objects that there is, nevertheless, considerable variation of detail to avoid a mechanical monotony. The heads of the players are obscured and revealed as are the backs of the chairs, the tubes of the horns take slightly different curves, and the horn at the left is only partially seen.

Data: 13 x 13" print.

Second Award

Advanced Class

♦ We consider this an exceptionally fine portrait. The expression of wrapt attention is pictorially interesting and is in keeping with the intellectual qualities which are evident in this fine head. The glasses-to-mouth gesture also fits in perfectly with the mood of the subject, and in addition, this device helps to lift the picture out of the ordinary. Expression and gesture combine to give the picture a fully alive feeling and a pronounced appearance of complete naturalness. The use of a gesture of this kind not only helps to build interest in the portrait, but is also often the means of putting the sitter sufficiently at ease so that camera consciousness is obliterated. Posing of the hand could be somewhat improved by avoiding a right angle at the knuckles and by raising the second finger to a point below the first and the third to a point below the second so that the structure of each is clear.

Data: 15 x 18" print.



"Axel Hirshberg"
Axel Bahnson,
Yellow Springs, Ohio

Third Award

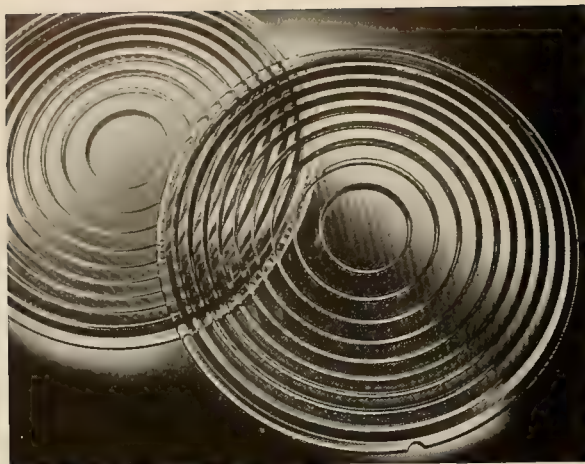
Advanced Class

The main theme here is really the costume, rather than the girl, and Mr. Breedon has obtained an interesting effect by concentrating on the texture and translucent qualities of the skirt. A strong sense of movement is built into the picture by the swinging line of the black lace. The dark bodice and the head combine to form a point of rest, and it is well to observe that secondary points of rest occur in each hand. The background is weak as a supporting base. The faces in the foreground photograph too light and are scrawny and inadequate, which condition is aggravated by their being badly out-of-focus. If these had been removed before making the shot, it would be relatively easy to dodge in the foreground to a considerably deeper tone. A deeper tone would contribute a feeling of solidity to the base which would permit it to reform its supporting function more successfully.

Data: 4 x 5" Graflex Series D; 21 cm. Zeiss Tessar; 1/50th sec. at F:12.7, with K-3 filter; a Pont Superior cut film, in Pyro-Acetone; 10 1/4 x 13 1/4" print on Agfa Brovira Medium Glossy, D-72, 4:1.



John P. Breedon, Jr.,
Palo Alto, Calif.



"Fresnell Lenses"

*H. K. Shigeta,
Chicago, Ill.*

that technical data is not supplied, telling how this was accomplished. Greatly diffused light or a pola-screen might have been used, or possibly the surfaces of the lenses were treated with something to reduce reflection. A combination of the first and third-mentioned methods was widely used before the introduction of the pola-screen and is still popular in the many cases where the pola-screen is not sufficiently effective or not applicable.

Data: 11 x 14" print.

♦ This picture offers a fine example of how two circular objects of approximately equal size and interest can be successfully placed in the picture space. Observe that the central circle in each lens is placed in a strong position but that one is definitely subordinated to the other by being cut by the edges of the print and by being overlapped by the other. The picture also shows us that objects of little intrinsic pictorial interest can be made interesting by a lighting which brings up an intriguing pattern and texture. Notice the absence of strong reflections which would constitute distracting highlights. We are sorry



*Hal Sobotker,
Pasadena, Calif.*

♦ The old-fashioned and dusty details of this ancient store front provide fascinating picture material. Mr. Sobotker has photographed it beautifully so that the full flavor and texture of the weather beaten old building comes through to us in a warm glow of sunshine. The bright front of the further building tends to pull the eye toward the upper left corner where it has an opportunity to slip out of the picture. Since the front of this building contributes nothing to the picture there is no reason why we should not trim in from the left to the near corner, thus eliminating the distraction mentioned entirely.

Such trimming, however, causes the expanse of wall on the right to appear excessive because the principal material (the store front) is now all on the left. Again there is no reason why we should not trim from the right almost into the sign which reads "Brighto Brightens Old Bodies," thus getting rid of the minor distraction of the roof which projects in from the right. The trimming compacts the essential picture material and brings about a concentration of interest through the elimination of the two disturbing items mentioned.

Data: 11 x 14" glossy print.



"Sis"

John H. Vondell, Amherst, Mass.

First Award—Amateur Class

♦ This is Mr. Vondell's second first award and he consequently has earned a well deserved promotion to the Advanced Class.

Here is a picture with a sure and universal appeal, for who can resist the charms of this happy and carefree little lady. There is a certain danger, which photographers should be aware of, in turning the eyes so far to the side. When we first come upon the picture the eyes seem just right perhaps, we like the feeling of aliveness which the sideways glance helps to convey. If we look at the picture for some time, however, the eyes begin to seem unduly prominent because of the large expanse of white and we feel a sense of strain that was not at all apparent at first. The point is that a very pronounced turning of the eyes, such as we have here is bound to affect the "staying" qualities of a picture. We cannot enjoy it completely for as long a time as we could if the eyes were not turned quite so sharply to the side. Usually, though not always, here is a happy medium. A position for the eyes which will not build up to a sense of strain, but which will still carry the desired expression.

Data: $3\frac{1}{4} \times 4\frac{1}{4}$ " Tele Graflex; 1/50th sec. at F:8, on Agfa Triple S Pan, in Kodak D-7; $13\frac{1}{2} \times 16\frac{1}{2}$ " print on Kodak Kodalure P; Nelson Gold Toned.



*Michael J. Roll,
Dearborn, Mich.*

Second Award

Amateur Class

♦ In this picture Mr. Roll tells a very simple story with artistic understanding and superb technique. Observe how the dark areas are linked together to form a frame to contain the more active light areas. All of us have seen pictures of similar subject matter which failed because with full illumination throughout the bright white of the sink extended to all sides of the print, offering the eye endless temptations to slip out of the picture. This lighting plan avoids that difficulty almost completely, the only possible weak point being the bright patch which cuts the right side of the print near the oranges. There is no really pronounced tendency for the eye to go out here but the composition would be stronger if this bright spot did not reach to the edge of the print. The low concentrated source of light has two other advantages. It lends a dramatic touch to the picture and reveals to the camera a wealth of subtle detail in the water. Both of these factors, quite obviously, heighten interest to a considerable extent.

Data: Rolleiflex; 14 x 17" print on Defender glossy.



"Across the Street"

*H. J. Johnson,
Chicago, Ill.*

Third Award

Amateur Class

♦ Mr. Johnson has handled this long scale subject quite skillfully, exposing for the shadow area so that this part of the subject can carry sufficient interest to function properly. If this had not been done it would be necessary to eliminate most of the foreground and part of the dark material on the right for these would then be simply dead space. Once again we have proof of the supreme importance of completely visualizing the finished picture in advance of exposure. The bright line of the sunlit buildings leads the eye into the picture quite easily and releases it at the turn of the road so that the movement may be repeated. In general the figures are nicely disposed but it is unfortunate that two figures are somewhat confused with the burros and the burros themselves rather confused with each other. By confused we mean that a distinct effort must be made to clearly separate one from the other in the mind's eye. This sort of thing appears to be almost inevitable in unposed shots of this kind. It is not a very serious deficiency in this picture but we

think it would help to kill the bright hat which is seen just between and above the two burros.

Data: Recomar camera; 1/50th sec. at F:16, on Kodak Panatomic X in Kodak DK-20; 14 x 17" print on Kodak Kodalure G, in D-72.

Fourth Award

Amateur Class

The charm of this picture lies in the remarkable harmony of expression between boy and dog, and in the complete naturalness of both pose and expression in the two interesting little subjects. We believe that most readers will agree that the boy appears to be unnecessarily crowded toward the left in the picture space. Best solution would be to add space to the left plus a little at the top until that feeling is gone. If that is impossible it would be advisable to trim from the right until the two principal points of interest, the two heads, are brought into balance in the picture space. This would involve trimming away about half the length of the dog's body. Obviously this results in a tall narrow picture of rather awkward shape and the subject matter still would appear crowded in the picture space. We believe, however, that it is far more important to have the two points of emphasis in proper balance than to maintain usual print proportions.

Data: $3\frac{1}{4} \times 4\frac{1}{4}$ " Speed Graphic; $14 \times 15\frac{1}{2}$ " print on Kodak Opal, in D-52.



Edward H. Gignas,
Dearborn, Mich.

Fifth Award

Amateur Class

This picture has considerable impact because of the thrust of the hulls and the extreme contrast between the bright surfaces of the boats and the dark water. The three boats are organized into a rather interesting relationship to each other and are well placed in the picture space. Our general feeling is that the picture needs something to build up interest. Perhaps a lazily reclining figure would do the trick. At least it would help to bring the feeling of the picture closer to the title. As things are the push of the curving hulls and the brilliant contrasts suggest something far more dynamic than day of rest.

Data: 9×12 cm. Voigtlander Bergheil; 13.5 in. Heliar; $1/50$ th sec. at F:16 on Agfa Super-8 Press film-pack in Agfa 17 M; $13\frac{1}{2} \times 16\frac{1}{2}$ " print on Kodak Kodabromide; taken about 10:30 A. M. in June in bright sunlight at Gloucester, Mass.



"Day of Rest"
C. B. Phelps, Jr.
Grosse Pointe, Mich.

Monthly Competitions

The Jury

W. E. Dassonville, Thomas O. Sheckell, George Allen Young.

Scoring for Club Trophy Cups

The following won points for their respective clubs in the Advanced Class: H. K. Shiget for the Fort Dearborn Camera Club; Sydney Hut, for the Manhattan Camera Club; John F. Breedon, Jr., for the Palo Alto Camera Club; Hal Sobotker, for the Pasadena "Y" Camera Club and Axel Bahnsen, for the Yellow Springs Camera Club.

The following won points for their respective clubs in the Amateur Class. John H. Vondel for the Amherst Camera Club; Michael J. Roll, Edward H. Gignas, and C. B. Phelps, Jr., for the Detroit Camera Club.

H. J. Johnson has no club affiliation.

Contributing Clubs

Alameda Photographic Society (Alameda, Calif.)
Blue Bell Camera Club (Detroit, Mich.)
California Camera Club (San Francisco)
Channel City Camera Club (Santa Barbara, Calif.)
Cleveland Photographic Society, Cleveland, Ohio)
Dallas Pictorialists (Dallas, Texas)
Detroit Camera Club (Detroit, Mich.)
Fort Dearborn Camera Club (Chicago, Ill.)
Kamera Kranks of Durham (Durham, Calif.)
Madras Amateur Photo Society (South India)
Manhattan Camera Club (Manhattan, N.Y.)

Miniature Camera Club of N. Y.
Oakland Camera Club (Oakland, Calif.)
Oklahoma Camera Club (Oklahoma City, Okla.)
Pacific Camera Guild (Sacramento, Calif.)
Palo Alto Camera Club (Palo Alto, Calif.)
Pasadena "Y" Camera Club (Pasadena, Calif.)
Photographic Society of Hong Kong (China)
Photographic Society of India (India)
Queen City Pictorialists (Cincinnati, Ohio)
San Francisco Camera Club (Calif.)
San Jose Camera Club (San Jose, Calif.)
Yellow Springs Camera Club (Yellow Springs, Ohio)

Standing of Clubs

Large Clubs—Advanced Class

Fort Dearborn Camera Club.....	29
Pasadena "Y" Camera Club.....	19
California Camera Club.....	17
Manhattan Camera Club.....	5

Small Clubs—Advanced Class

Photographic Society of Hong Kong.....	20
Yellow Springs Camera Club.....	9
E.P.I.C. Pool.....	4
Rothschild Camera Clinic.....	4
Palo Alto Camera Club.....	3
Alameda Photographic Society.....	2
Aremac Camera Club.....	1
Kamera Kranks.....	1

Large Clubs—Amateur Class

Detroit Camera Club.....	2
Cleveland Photographic Society.....	2
Manhattan Camera Club of New York.....	1
California Camera Club.....	1
Photographic Society of San Francisco.....	1
Amherst Camera Club.....	1

Small Clubs—Amateur Class

Camera Club of Maryland.....	
Kamera Kranks.....	
Dallas Pictorialists.....	
Tulare Camera Club.....	
Greenville Photographic Society.....	
Women's Photographic Society of Cleveland.....	

SUMMARY OF COMPETITION RULES

1. Open to all, amateur or professional, club member or non-club member.
2. Closing date 1st of each month.
3. Indicate class of entry (Advanced or Amateur) and club membership (if any) on back of each print. Technical data should accompany each print.
4. No entry fees or blanks required.
5. Stamps must be enclosed for return of prints.
6. Full explanation will be sent free on request or may be seen on page 47 of January 1941 issue.

Club Notes

ooths, at one end of the main Basement Exhibition Hall has been made available to the Photographic Society of America for display space in connection with the 1941 Combined Photographic Industry Conventions and Trade Show to be held August 18-22 at the Stevens Hotel, Chicago, Illinois. The Photographic Society of America exhibit will be the largest in the Basement Exhibition Hall and promises to be one of the most interesting. It will be built along educational lines and will show the work being done by the Society's more than 2000 individuals and 500 clubs. A feature will be a 50 invitational print exhibit, containing many of the outstanding examples of nature, documentary, technical and pictorial photography. The Society has made arrangements to display approximately 25 photographs from prominent photographers of Europe. Among the clubs that will be represented are: The Atlanta Camera Club, Georgia, The Baltimore Camera Club, Maryland, The Camera Clique of St. Louis, Missouri, The Detroit Camera Club, Michigan, The Houston Camera Club, Texas, The Lens Club of Bayonne, New Jersey, The Los Angeles Camera Club, California, The Manhattan Camera Club, New York City, The Miniature Camera Club, New York City, The Omaha Camera Club, Nebraska, The Photographic Society of San Francisco, California, The Queen City Pictorialists, Ohio, The Rothschild Camera Clinic, California.

After a year of assembling, the Permanent Brooklyn Museum Collection of Salon Photographs will put on view at the Museum a selection of about sixty-five prints from the over one hundred prints which the Curator, Herman de Wetter, has chosen as a basis for the collection. Mr. de Wetter, well-known photographer, teacher of the subject and Official Brooklyn Museum photographer, prints out this activity recognizes photography as an art form and that it is the first permanent museum salon collection to be formed in this country. He is building it up by acquiring each print by invitation. Prints are usually contributed by the artist. This initial exhibition is to be known as the "First Annual" and will be held from September 19th through October 19th.

Photographic Instruction

The Photo League, 31 E. 21st Street, New York City, will add a new course in their school of photography during their fall semester. The course will cover synchroflash technique and will be conducted by Harry Morris, Staff Photographer of the newspaper PM and Elliot Elisofon, well-known free-lance photographer whose work appears regularly in Life. The fall term begins September 9th.

The Tripod Club of Central Branch Y.M.C.A., 55 Hanson Place, Brooklyn, N.Y., again

takes pleasure in announcing its fall courses in Fundamentals of Photography, Advanced Technique, Portraiture and Retouching, scheduled to start the last week in September. Mr. J. Ghislain Lootens, F.R.P.S., will again be the instructor, and from present indications, these classes will enjoy their usual popularity. The Seventh Annual Exhibition of Photographs by the students of these classes during 1940-41 shows excellent work and has been very well received by the many who have viewed it. The Club will be glad to send descriptive folder upon request.

Contests

The San Mateo County Fiesta Second Annual Photographic Salon, under the auspices of the Peninsula Camera Club, will award \$200.00 in cash and merchandise. Closing date for entries is September 12th. There will be two classes in the contest opened to amateur photographers, Beginners and Advanced. Judges will be Herman C. Bryant, C. Stanton Loeber, and George Allen Young. Entry blanks may be obtained from San Mateo County Fiesta Office, 72 Third Ave., San Mateo, Calif., and from photographic supply dealers in the San Francisco Bay area.

New Clubs

The Chocolate Town Camera Club, of Hershey, Pa., was organized in 1939 as a community club without dues. However, the club developed so rapidly that in order to give the membership the activities they wanted, the group was reorganized and began to collect dues in 1940. In June of 1941, they held their first annual banquet and print exhibit. They are now assembling a traveling exhibit and an announcement regarding its distribution will be made at a later date. Correspondence should be addressed to John B. Mengel, Secretary, 1336 Harding Avenue, Palmyra, Pa.

A Binghamton Technical Section of the Photographic Society of America has been organized in Binghamton, New York. At the organization meeting held on May 28, and attended by 53 members, the following officers were elected: Chairman, Lloyd E. Varden; Vice-Chairman, Fred Jayne; Secretary-Treasurer, Walter Lester; Members-at-large, Ira Current, Frank Fiaschette. Mr. Fred Quellmalz and Mr. Don Loving of the National Organization officially welcomed the new members and outlined the limitless possibilities of such a group. The Binghamton group is composed mainly of technicians and engineers in the photographic industry; although others are expected to increase the scope and strength of the organization.

Notes and Comments

New Color Process Announced by Eastman

In 1936 Kodak first announced Kodachrome for miniature cameras in 35 mm. and Bantam sizes. Since then inexpensive color prints from these Kodachrome transparencies have been the dream of thousands of camera addicts.

With the announcement of Kodak Minicolor Prints from miniature Kodachrome transparencies by the Eastman Kodak Company, at the National Photographic Convention in Chicago, the camera fan's dream has been realized. Minicolor Prints are really something to see and talk about.

This is the process about which rumors have been circulating for so long. Details are not revealed but the printing medium is apparently a three-layer emulsion similar to Kodachrome, coated on white pigmented cellulose acetate of about the thickness and resilience of a playing card. It appears the printing is carried out by direct projection from the original Kodachrome, thus eliminating the necessity for making three-color separation negatives.

Kodak Minicolor Prints are enlarged from either 35 mm. or Bantam size Kodachrome transparencies by a standardized process in the Kodak Laboratories in Rochester. They are made only from Kodachromes in 2 x 2-inch mounts with the standard central openings. Enlargements are available in two sizes. The "2X" size is about 2¼ x 3¼ inches. On these the corners are rounded and there are no margins. The larger size "5X" affords a print 5½ x 7-4/5 inches, and prints are returned in mounts—for horizontals 8½ x 10¼ inches and for verticals 8½ x 11½ inches; the picture opening, or area, measuring 5 x 7½ inches.

The quality of the Minicolor print naturally depends on the quality of the Kodachrome transparency from which it is made. A good, properly exposed transparency which will project well, should yield a good color print. Kodak Minicolor Prints contain dyes which, in common with those used in printers' inks and artists' paints, and other similar materials may, in time, according to the Eastman Kodak Company, change. These Prints, therefore, will not be replaced or otherwise warranted against any change in color. The dyes used in Kodak Minicolor Prints are stated by Eastman Kodak Company to be as stable as possible consistent with their other requirements. It is important that the Prints should not be exposed for long to direct sunlight. When they are used for display they should be shielded from the direct rays of the sun.

The "feel" of a Kodak Minicolor Print, particularly in the smaller size, is that of an unusually fine playing card, strong, attractive, and resilient. The print support, or base, however, is not paper or card, but pigmented cellulose acetate.

It cannot be expected that Minicolor Prints will supplant the projected Kodachrome

transparencies, but this new offering of Kodak bridges a gap that will well traveled in the future because the are endless uses for these color prints. T smaller size will make attractive miniature for use in desk frames. A Minicolor section can be created for a photographic album—they may be mounted on personal Christmas or greeting cards. For those who like show friends, here and there, examples of their skill in color photography, the "2X" Minicolor prints fit nicely into pocket bifolds or memo books. For protection Minicolor prints are doubly varnished.

Just as many uses will be found for the larger "5X" prints but one immediately suggests that they will be a means of beautifying the home when framed and hung, or used easel-type mountings.

It is too early to predict the full scope of the use of Minicolor prints but one thing is certain—they have appeal to the nth degree and represent another great advancement in photography in general and color photography in particular.

The "2X," 2¼ x 3¼-inch Minicolor prints are seventy-five cents each, and the larger "5X" size, \$3.50, including mounts.

Kodachrome Professional Prints

Color prints made by this same new process may also be had from Kodachrome Professional Cut Film Transparencies, and these are named Kodachrome Professional Prints.

They can be made in sizes up to 30 x inches, a size never before successfully obtained in full color prints.

Kodachrome prints will be made by Eastman at the company's Rochester laboratories in the sizes listed below. They will be made from all sizes of Kodachrome Professional Film Transparencies except 45 x 1 mm., 6 x 13 cm., and 11 x 14 inches. The maximum enlargement from any transparency is limited to six diameters. Transparencies may be cropped. If this is desired, it is only necessary to indicate clearly by an overlay accompanying the transparency.

Prices for Kodachrome Professional Prints are:

Size	8x10	11x14	14x17	16x
Price per print	\$12.00	\$17.00	\$25.00	\$33.00
"	6.00	9.50	14.00	18.00
Size	18x22	20x24	24x30	30x
Price per print	\$39.00	\$45.00	\$66.00	\$90.00
"	22.50	27.50	40.00	60.00

Both Kodak Minicolor Prints and Kodachrome Professional Prints will be available through dealers in September.

* Additional prints from same transparencies when ordered at same time.

Compact, dependable, easy to use, and low in price, the new Kodak Junior Synchronizer, manufactured by the Eastman Kodak Company, operates to perfection with cameras having setting-type shutters, such as

Diomatic, Kodamatic, Supermatic, Compur, on which the cable release connects directly to the shutter. Invaluable to the amateur photographer is the fact that it is pre-synchronized, requiring no adjustments before picture taking can begin, and no further adjustments to insure dependable, accurate synchronization for all future flash pictures. The owner can remove the Kodak Junior Synchronizer in a jiffy from one camera and attach it to another without special work or testing and be assured consistent results.

Taking the popular and convenient miniature photoflash bulbs—Mazda No. 5 and SM—the Kodak Junior Synchronizer permits making excellent synchronized flash pictures at shutter speeds up to 1/200 of a second inclusive with SM lamps and 1/50 with No. 5 lamps. The lamp circuit is closed as the synchronizer plunger pin contacts the shutter trip lever and, since the time required for the Photoflash lamps to reach peak brilliance matches the time required for the shutter to reach full open position, accurate synchronization results.

The battery holder, of black molded material, taking two pen-sized pocket flashlight batteries, together with a polished reflector mounted as part of the unit, is quickly attached to the tripod socket of the camera by means of a bracket and a knurled headed tripod screw.

The synchronizer unit, to which is attached a No. 2 Kodak Cable Release (purchased separately) screws into the cable release opening on the shutter. After the Photoflash lamp is inserted in the socket and the shutter is set, steady, positive pressure on the plunger of the cable release makes the exposure. A slight turn of the molded knob on the back of the reflector ejects the used bulb.

For sharp, fine quality enlargements, from a wide range of negative sizes up to 4 x 6 inches, Eastman Kodak Company announces the new Kodak Auto-Focus Enlarger, Model C. Focusing of the 130-mm. Kodak Anastigmat lens is automatic at all magnifications from 1½ to 3½ diameters; and in addition, greater magnification to 10 diameters can be obtained by manual focusing.

The Kodak Auto-Focus Enlarger can be clamped to a table top or wall bracket, eliminating the need for a baseboard and facilitating storage, requiring a comparatively small space only 16 x 9 x 36 inches. Regularly supplied is a Kodak Masking Paper Board, permitting masked prints up to 11 x 14 inches to be made.

Attractively finished in light gray crinkle, the lamphouse contains a diffused lighting system, obtained by means of a No. 213 Photo Enlarger Lamp and flashed opal diffusing glass. Built-in resistance permits two light intensities—"Dim" and "Bright." The "Dim" intensity not only prolongs the useful life of the lamp, but is recommended for composing and focusing the picture, lodging, and for printing from thin negatives. The "Bright" intensity is recommended for printing from very dense negatives, or from normal negatives where a short exposure time is desirable.

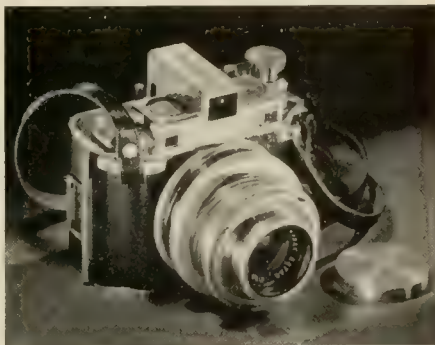
A negative carrier, with a 4 x 6-inch opening, accepts film, plate, and roll film negatives in strips, and seven flexible metal

masks, from 1½ x 1½ to 4 x 5 and 3½ x 5½ inches are included. Three ventilating openings, two of which are near the carrier, aid in keeping the negative cool during enlarging.

Kodak Medalist

Heralded as the only 2½x3¼ camera combining in one compact, integrated assembly, the convenience of roll film with easy adaptability to the use of cut sheet film, film packs and plates, plus the scope, accuracy, and operating refinements of a precision miniature, the Kodak Medalist is announced from Rochester by the Eastman Kodak Company.

Radically but pleasingly different in appearance and construction and beautifully finished in every detail, the Kodak Medalist is apparently designed for exceptional flexibility of performance and fast, easy operation, to definitely meet the demands of the most critical workers. It should appeal to news, commercial, and scientific photographers who must produce consistently good results—advanced amateurs and pictorialists who compete on the basis of quality and camera enthusiasts in general, who want fine equipment.



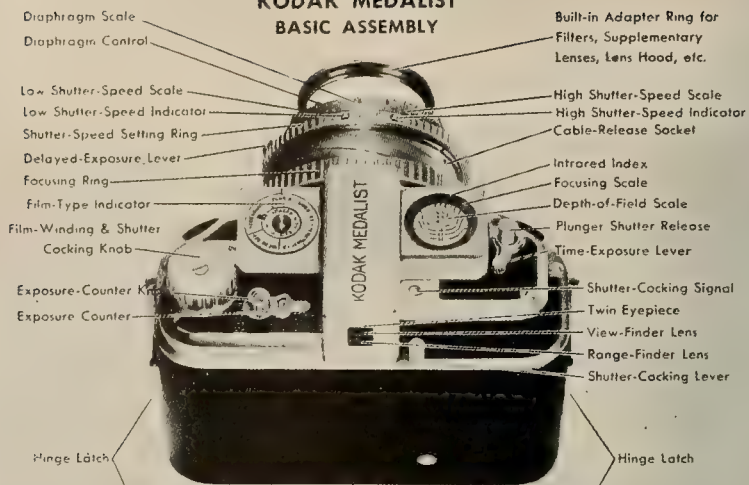
Kodak Medalist

This precision, all-American-built camera, produces 2½x3¼ images on 620 roll film; and with the accessory back, on 520 film packs and 6.5x9 cm. films and plates.

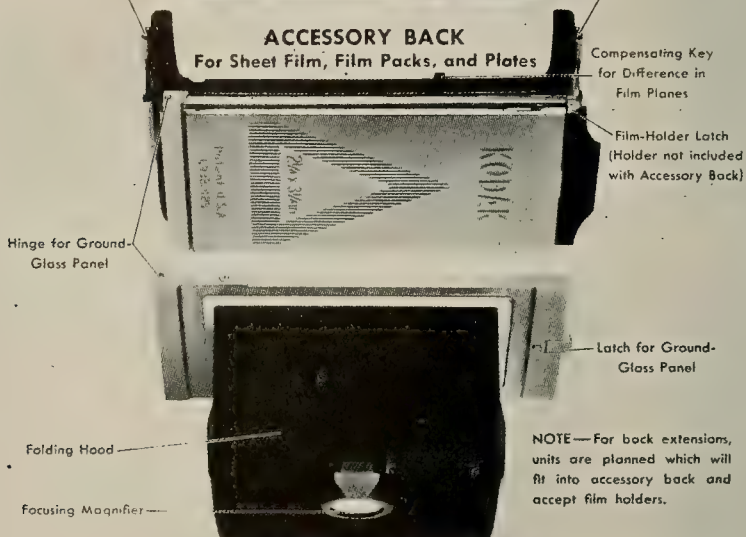
Its 100-mm. f/3.5 Kodak Ektar Lens more than meets the present-day needs for a fast, highly corrected lens and is acknowledged to be the finest lens ever available in the 2½x3¼ field. It consists of five elements, and like all Ektar lenses, it is focused as a unit. Its formula is a new one computed especially for the Medalist. All interior glass-air surfaces are treated which, together with its special mount and shutter surfaces, reduces interior-surface reflections to a minimum and produces negatives with more brilliant contrast, and full color Kodachrome transparencies with greater color purity. Its technical characteristics include an angle of coverage of 54°—flat field—greatly improved color correction longitudinally and exact register laterally—no measurable coma or linear distortion—exceptional light transmission, and superior definition.

Its new formula, based on latest knowledge, its surface treatment, and the critically tested assembly of the lens element in

KODAK MEDALIST BASIC ASSEMBLY



ACCESSORY BACK For Sheet Film, Film Packs, and Plates



NOTE—For back extensions, units are planned which will fit into accessory back and accept film holders.

GROUND-GLASS PANEL (Included with Accessory Back)

the precision mount, all contribute to the unmatched performance of Kodak Medalist's great lens.

The shutter is a special model of Kodak Supermatic No. 2 which has gained worldwide recognition as the most accurate between-the-lens shutter. It is of the gear-train retard, presetting type, with blades of special thin, low-inertia spring steel; base plate and all gears are of nickel silver or stainless steel. It has eight apertures from f/3.5 and nine speeds ranging from 1 to 1/400 second, plus bulb. It also has built-in, delayed-exposure mechanism, cable release socket for remote control, and Photoflash synchronization. Aperture and shutter scales are easily visible from the operating position with shutter speed scale divided with separate indicators for high and low speeds.

The plunger-type shutter release, located for convenient operation by the forefinger of the right hand, trips the shutter with a smooth positive action.

Time exposures are easily made by swinging to the user's right the small lever connected to a collar encircling the release plunger. With the lever in this position, and the shutter set on "bulb," the plunger release remains down when depressed, and the shutter is held open until the lever is returned to its normal position. After each exposure a red warning signal appears in a small circular window located just back of the Depth of Field Scale, indicating that the shutter is not cocked. On winding the film to the next exposure or by cocking the shutter manually with the lever projecting from the base of the viewfinder housing, the red signal disappears.

The Kodak Medalist's radically new lens support meets all exacting requirements for critical focusing and is an important advance in precision camera design. Instead of the bed and bellows of the conventional larger negative camera, the Medalist has two helically inter-threaded tubular members . . . tooled to extreme low tolerance . . . which support the lens at any position—over 30 inches of metal-to-metal bearings. The lens is extended and retracted by the focusing ring, or the micro-focusing knob—always on axis—parallel with the film plane.

About one-third turn of the heavily-milled focusing ring brings the lens to infinity focus position, and less than a half turn sets it at the 3½-foot minimum focus. This ingenious design permits the lens to be held absolutely rigid at every position. The lens, shutter, and the tube in which they are mounted—do not rotate but the entire unit is thrust forward by the velvet-smooth action of the threaded tubular sleeve.

Built into the top of Kodak Medalist is another new feature every user will receive with enthusiasm. Coupled to operate with the focusing tube after it is extended to picture-taking position, a distance scale turns to show the focus at which the lens is set. The depth of field at any distance can then be read for any lens aperture selected.

Kodak Medalist has a split-field, military-type range finder system coupled to operate automatically with the lens. The range finder eyepiece is located but a small fraction of an inch below the eyepiece of the view finder, so that it is unnecessary to

shift the camera position. Merely rolling the eye permits the user to view the subject through the desired eyepiece.

The view finder is designed to give parallax correction automatically while the range finder eyepiece shows the central portion of the subject field covered by the view finder.

After the lens is extended to picture-taking position and the picture is composed, the eye is shifted to the range finder eyepiece. A slight turn of the focusing ring brings the lens into fully accurate focus.

When Kodak Medalist is loaded with Kodak Infra-Red Film, the range finder is used to measure accurately the subject distance. Then, however, because infra-red light focuses at a different plane from other light rays, correction is made by manually setting the distance found by the range finder to coincide with the red mark appearing on the dial.

The back of Kodak Medalist is designed with an ingenious combined hinge and latch at each end. Hence the back can be opened either to the right or to the left or it can be removed entirely.

Loading is made extremely easy by another new feature. There are no spool centers in the supply spool chamber. The roll of film is merely pressed into the spool chamber, the two flanges of the spool riding against small separate rollers at each end of a film guide.

An automatic measuring device, working in conjunction with the film-winding knob, permits only sufficient film to be advanced for each exposure. Turning the winding knob to advance the film sets the shutter automatically.

Double exposures cannot be made unintentionally, for once the shutter has been released it will not operate again until the film has been wound into position for the next exposure, simultaneously setting the shutter.

On the other hand, when the user wishes to make double exposure, the shutter can be set manually without advancing the film, by merely swinging to the left the lever seen projecting from the base of the view finder housing near the back of the camera.

An easily read exposure counter is located at the left of the finder when the camera is held ready for use. Just ahead of the counter is a large circular dial that can be hand-set to indicate the type of film with which the camera is loaded.

Another striking example of design to permit great versatility and flexibility of performance is the Accessory Back for Sheet Film, Film Packs, and Plates, to be available in August at \$18.50 retail.

Many prospective purchasers of this camera are certain to be highly enthusiastic when they learn that, in addition to the many Kodak Roll Film emulsions available, they may also choose from the even greater variety of 2¼x3¼-inch or 6½x9-cm. Sheet Films (including Kodachrome), and Plates, and 2¼x3¼-inch Film Packs.

Simple directions for the initial fitting of the Accessory Back are supplied the purchaser and once the minor adjustments to assure perfect fit are made, the Accessory Back may be substituted for the regular back at any time in a matter of seconds only.

When Kodak Film Packs are to be used, the regular 2½x3¼ Kodak Film Pack Adapter, available at \$4.75 retail, is inserted. When Sheet Films or Plates are to be used, the 2½x3¼, or 6.5x9-cm. Kodak Combination Film and Plate Holder, available at \$1.50, is used.

With the Accessory Back in position, Kodak Medalist may still be focused by means of the range finder—at subject distances from 3½ feet to infinity.

In addition, however, a ground-glass focusing screen is included with each Accessory Back for Sheet Film, Film Packs, and Plates. When the owner wishes to compose and focus the subject on the ground-glass screen, it is attached to the Accessory Back by means of a substantial pin hinge at one end and a latch at the other end. A No. 2 T.B.I. Cable Release, also supplied, holds the shutter open during focusing.

The ground-glass screen is equipped with a folding hood. A built-in magnifier that can be folded out of the way when desired, assists in obtaining needle-sharp focus.

After focusing, the ground-glass screen is easily unlatched and swung out of the way or it may be entirely removed by pulling up the retractable pin from the hinge. The shutter is then closed and the film or plate put in position for exposure.

Owners of Kodak Medalist can also make use of the camera as an enlarger. The basic equipment needed consists of the Kodak Precision Enlarger Stand Assembly—base-board, vertical column, and sliding bracket—retailing at \$25; the Condenser Head A—lamp house, No. 212 Mazda Photo Enlarger lamp, No. 4 Condenser A, and 2¼x3¼-inch Glassless Negative Carrier A (for roll film or for sheet film)—retailing at \$22.50; and the new Camera Adapter A for Kodak Precision Enlarger retailing at \$10.

Kodak Medalist comes equipped with a handsome black leather neck strap, easily removable when desired.

In addition, many Kodak Medalist purchasers will want to have the smart field case of tan saddle leather retailing at \$12.70. The field case, designed for the camera with the regular roll film back, carries its own matching and adjustable tan leather neck strap.

The Field Case for Kodak Medalist is of two-piece construction, so that the portion covering the front and top of the camera can be entirely removed. Lined with tan skiver leather, the edges of the case are dark brown, waxed and polished.

The Kodak Medalist, without accessories is priced at \$165.00.

With press photographers all over the country making tests with home-made infra-red flash equipment for use in possible blackouts, the Wabash Photolamp Corp. has just announced a specially designed flash bulb for the purpose to be known as the Blackout Superflash.

The Blackout lamps, according to predictions by press photographers and officials of the U. S. Army who observed the early tests, will make history in the photographic profession, as they now make possible and completely practical for the first time instantaneous photography in total darkness with "invisible light." The proverbial "black cat

in a coal pile on a stormy night" can now be photographed without even knowing he has been posing for a picture. Besides the obvious use in time of blackouts, the new lamp has many other applications where ordinary visible flash cannot be used. A few instances of these applications are darkened theatres and night clubs, courtrooms, public lectures, symphony concerts, photographic darkrooms, etc.

Essentially, the new Wabash Blackout lamp is a hydronalium wire-filled Superflash treated and coated with a specially prepared black infra-red filter which dries hard as nails and cannot be damaged by any mechanical, chemical, or atmospheric conditions normally encountered by flash bulbs in any part of the United States. This black infra-red coat serves to hold back the "visible" light produced by the flash. It transmits only the infra-red rays which are invisible to the eye but which register instantly on the infra-red sensitive film in the camera, so that even in total darkness no visible light is shown when the flash goes off.

In application, the lamp can be used in practically any type of reflector, but the best type of results have been secured with the special infra-red flash reflectors that several of the equipment manufacturers have designed in collaboration with Wabash, and which are now being made available.

A peculiar characteristic of infra-red film is off-focus. Pictures will not be in needle-sharp focus unless a slight focusing correction is made to compensate for the type of lens used, because the infra-red rays go to focus on a slightly different plane than ordinary light rays. The peculiar effects invisible light produce are extremely interesting. Dark lipstick, for instance, comes out almost pure white. Invisible veins lying under the skin show up with startling contrast. Old stains in clothing, even though dry-cleaned, show up clear in the picture as though they were never removed. A clean-shaven man appears slightly unshaven, and many other odd effects will show up under various conditions with this type of photography.

This new lamp will be identified as Wabash Superflash Blackout bulb, will list at 60c, and will be commercially available the latter part of August. Complete details can be had by writing Wabash Photolamp Corp., Brooklyn, N. Y.

Unexcelled in performance, appearance, and quality at its price, the new Kodascope Eight-33 Projector, manufactured by the Eastman Kodak Company, contains a number of features appealing to home movie fans interested in large, brilliant, and uniformly lighted screen pictures. The optical system includes a one-inch f:2 Kodak Anastigmat projection lens, highly corrected to give excellent definition at all recommended projection distances, and easily focused by means of a small arm on the lens barrel. Directly behind the projector lamp is a polished metal mirror, and in front of the lamp is a condenser lens that can be easily removed for cleaning.

Affording finger tip control of major projection functions, the motor switch, speed control, and lamp switch are located on a

single panel. The lamp and motor circuits are so arranged that the lamp will not light until the motor switch is closed, and the lamp can be turned off for rewinding. An automatic safety shutter drops into place between the film and the condenser if the speed of the projector becomes too low. Of high quality, the powerful 100- to 125-volt, A.C., or 25- to 60-cycle A.C. motor assures smooth projection, and an efficient ventilating fan, mounted on the end of the motor shaft, blows air directly on the lamp and then through louvers in the top of the lamp-house.

Projector head, reel arms, fan house, lamp-house, and base of the Kodascope Eight-33 are of die cast metal construction, finished in gray wrinkle enamel. A convenient carrying handle is cast as part of the housing. The lamp-house is readily removable, providing easy accessibility to lamp and condensing lens.

Located on top of the projector, a positive framing device moves the film with respect to the gate, which makes it unnecessary to alter the projector tilt following the framing operation. Both the gate and pressure pad are finished in highly polished chromium plate. A simple catch holds the framed film gate open for easy threading and cleaning. On the front of the projector is a threading knob which permits checking threading operations before the projector motor is started.

This new Kodascope is regularly furnished with the standard 500-watt, line voltage, T-10, biplane filament lamp, however, it may also be used with either 300- or 400-watt lamps. The reel arms accommodate 200-foot reels. To rewind the film after projection, the upper spring belt is attached to the supply pulley, and the take-up belt is moved from the lower pulley. A screw-type tilting adjustment is located on the base of the projector.

Covered with airplane luggage fabric and of sturdy construction, a carrying case for the Kodascope Eight-33 is available as an accessory. It is sufficiently roomy to accommodate the projector, a spare lamp, two 200-foot reels, splicing and lubricating outfits.

Announcement is made by Radiant Manufacturing Corp., Chicago, of a recent Radiant development which brings to the market a new screen. This screen is automatic—a radical departure in ease of operation. Without the use of any set screws, spring plungers, or any other hand operated locking devices, the new automatic Radiant screen is erected instantaneously by 3 simple movements. A slight pressure on a small lever opens the tripod legs; a simple turn of the screen case places it in a horizontal locked position automatically; an effortless pull lifts and locks the screen into position automatically. No hooks, no hangar, no fixed position will be necessary. The new screen is adjustable to any height from 17 to 50 inches from the floor by use of the radiant exclusive automatic clutch. Square tubing minimizes side sway.

The latest addition to the Amfile family is a \$1.00 retailer at camera shops, that will keep your 2 x 2" slides in good order and



Amfile Slide File

easy to find at all times. There are two interior arrangements to choose from. One will accommodate 51 glass-covered, metal or paperboard mounted slides, each in a separate numbered compartment. The other style has fifteen 1" compartments and will hold up to 300 slides, depending on style. Each file has a separate Contents Folder where you can list the different slides according to number. Amfile Slide Files look just like books and can be stood upright in any bookcase. Size, $8\frac{1}{2} \times 7 \times 2\frac{1}{4}$ ". Well made and bound in practical colors—your choice of blue, green, red or black. The manufacturers, Amberg File & Index Co., Kankakee, Ill., will gladly send circular about this newest Amfile for Slides, also their complete line of files for movie reels, negatives, etc.

The Kalart Company announces its new model "E" Lens-Coupled Range Finder which will supplant the present Model "F." The new model range finder embodies the experience gained in the manufacture of more than 50,000 range finders. This synchronized range finder will fit all Speed Graphic cameras, Watson Press Cameras and most film pack cameras. Streamlined in appearance, the new model has a bigger and brighter image which will enable photographers to focus accurately even under unfavorable light conditions. The range finder is of the superimposed image type. Close working distance has been increased from $3\frac{1}{2}$ feet to $2\frac{1}{2}$ feet on the new shorter focal length lenses which will be of prime importance to those doing close-up work and portraits. Mechanically the new range finder will have all adjustments internally, simplifying installation and adjustment. The range finder is adjustable for all lenses from 10.5 to 16.5 cm. Adjustment permits owners to compensate for tolerances in focal length inherent in every lens. The new range finder has been made practically shock proof by ingenious suspension of the synchronizing mechanism. Price is \$24, plus nominal installation charge.

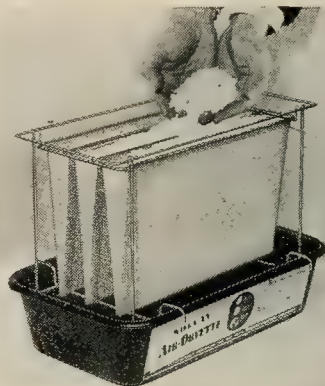
The Panatech Corporation has introduced the C.S.I. Film Tank Agitator at the remarkably low price of just \$3.35 complete. The C.S.I. is an all-electric agitator, featuring a non-directional motion parallel to the plane of rotation. The direction of the circulatory motion changes every one and one-half seconds. This keeps fresh developer in contact with the film at all times. For further details, see your local dealer, or write direct to the Panatech Corporation, 485 Fifth Ave., New York City.

Leitz Slide Cleaner has been developed by E. Leitz, Inc., of New York City, after a long search for a suitable medium for cleaning cover glass plates. This product is put up in 2-ounce bottles and a special applicator is supplied with each bottle. The applicator is a pliable, plastic "test tube" having a stopper made of sponge rubber. A small amount of the Leitz Slide Cleaner is placed in the applicator, and when the latter is held with the sponge rubber stopper down, the stopper becomes moistened with the solution. In use, the moistened sponge rubber is swabbed over the surface of the glass plate, and the latter is then rubbed dry with a clean cloth. The Leitz Slide Cleaner will effectively remove dirt, grease, smudges, fingerprints, etc. One is assured that the glass plates will be scrupulously clean. In addition, the Leitz Slide Cleaner imparts a smooth "finish" to the surfaces of glass plates, from which subsequent fingerprints may be removed quickly.

Bell & Howell enters the "still" projector field with the announcement of the new **Filmo Slide Master** for the projection of glass or paper mounted 2x2 inch Kodachrome or black-and-white transparencies. The most interesting feature of the Slide Master is the new "base-up" lamp which slides easily into the lamphouse from the top and which burns with its base upwards. This lamp has been especially developed for use in this position, the chief advantage being that the blackening deposit formed during operation of the lamp is not deposited on the sides of the lamp, where it would reduce light transmission. The Filmo Slide Master is designed to take 500, 750, or 1000 watt lamps. A powerful, motor-driven band circulates a forced draft of cool air throughout the projector with special attention given to cooling the slides. The motor automatically increases speed when a 1000-watt lamp is used, and decreases speed when lamps generating less heat are used. The projector is offered with a choice of 3½, 5, or 7½ inch F:4.5 lenses. For prices and further information write to the Bell & Howell Co., 1801 Larchmont Avenue, Chicago, Ill.

The F-R Enlarger is now ready for distribution, announces the Fink-Roselieve Company, Inc. The F-R Enlarger has been designed to accommodate all negative sizes up to and including 2¼ x 3¼ inches. It has been designed in two models: a standard bench or table model (Model No. 5) to sell at \$42.50; and a tripod model (Model No. 6) to sell at \$54.00. Both prices are quoted without lens. In every detail of its design and construction the F-R Enlarger is a precision instrument, capable of great versatility. Among its many distinctive features are: Enlarger head assembly—this entire unit is delicately counter-balanced and slides smoothly up and down the post; Optical system—carefully and precisely engineered, it employs a double condenser system which provides maximum illumination over the entire area of the negative; Double condensers—the use of oversized double condensers offers far superior results, particularly on the smaller negative sizes; Lamp House—this light-tight compartment contains the light source. Ingeniously designed, it provides proper ventila-

tion and heat dissipation; Negative carriers—the F-R Enlarger uses revolving, glass-less negative carriers. Each enlarger is supplied with a negative carrier in the 2¼ x 3¼ size or another size, upon request. Smooth, effortless and accurate focusing, a lens board carrier designed to accept either a metal or wood lens board, a filter holder and remarkable distortion control features. An attractive book describing the enlarger and offering other valuable photographic information, can be obtained by writing the Fink-Roselieve Co., Inc., 109 West 64th Street, New York City.



Solvay Air-Dryette, Jr.

The Solvay Air-Dryette, Jr., manufactured by the Solvay Process Co., puts an end to dampness in the darkroom. The Solvay Air-Dryette is filled with calcium chloride and absorbs the moisture in the room, eliminating mold, mildew and warping caused by humidity. Every darkroom is filled with expensive equipment and the Solvay Air-Dryette will give it the protection it deserves. An illustrated folder, completely describing the Solvay Air-Dryette is available upon request. Write the Solvay Sales Corp., 40 Recor St., New York, N. Y.

A novel new projector strip and transparency file has been introduced from the Filmdex Company, Mount Kisco, New York. The Filmdex Projector Strip is made of durable cardboard into which the transparencies may be easily inserted. Space has been provided for indexing. The Filmdex strip will slide easily through most of the popular priced projectors now on the market. An attractive case is available which will hold 36 strips. Filmdex projector strips are sold in sets of 3 for 30c. Write the above address for further details.

The Graflex Flash Synchronizer, introduced by the Folmer Graflex Corporation of Rochester, New York, can be used on all cameras with between-the-lens-shutters, capable of being synchronized, and that have lens boards large enough to accommodate the solenoid release. This synchronizer is supplied in two models—a compact 2 cell unit that will probably be preferred by users of the Miniature Speed Graphic, and

a 3-cell unit offering a somewhat greater battery life. Since the two units are identical in their performance characteristics, aside from the matter of battery life, both synchronizers are covered by the following description: The solenoid release is a cylindrical unit, so compact that it can be permanently mounted on the lensboards of the 3½ x 4¼" and 4 x 5" Anniversary Speed Graphics and remain in position with the camera closed. Quickly-detachable mounts are provided for the Miniature Speed Graphic, and for previous models of the larger sizes. The battery case may be attached to a suitable bracket on either side of the camera, and the new cam-clamp provides instant and firm attachment by the push of a lever. There are two parallel outlets for multiple-flash work with the connecting cord and another for standard household plugs, as well as a series outlet for focal-plane synchronization and remote control. The switch is associated with the series outlet in such a way that accidental ignition of the lamp through the switch cannot occur when this outlet is in use. Silver points in all important connections assure positive contact. A built-in focusing spot-light, controlled by a convenient slide-switch, directs a beam of light on the subject to assure accurate sighting and focusing even in total darkness and to serve as an indicator of approximate battery condition. Two types of highly efficient reflectors are available: a seven-inch reflector for medium-base lamps, adjustable vertically for various sizes; and a five-inch reflector (approved by lighting engineers) for concentrated illumination with miniature bayonet-base lamps, distributing the light evenly over the field of normal focal length lenses. Used lamps are automatically released by ejectors, thus permitting quick changes without burnt fingers. The major basic principle of the Graflex Synchronizer is the balance between the mechanical and electrical elements of its inertia-type solenoid release: it is designed to work on a battery having an output as low as 3 amperes, yet its accuracy is not noticeably affected by even the full 10-amp output of a 3-cell unit when the batteries are new. As a result any standard dry cell that fits in the battery case is completely satisfactory, and there is an ample reserve of current for accurate lamp ignition. Low temperatures causing a sharp drop in the output of even the freshest dry cell, or momentary exhaustion following a rapid series of flashes, or the loss of power that accompanies old age—none of these is likely to throw it "out of Sync" until battery output drops to the point where lamp-ignition failure is to be expected. By contrast, all high current-consuming synchronizers require adjustment for even modest variations in battery amperage to maintain synchronism. Due to the low current consumption of this new inertia-type solenoid release, three cells deliver enough current under most conditions to permit firing several lamps on suitable extension cords without readjustment of the synchronizer. A remote-control with a 25-foot cord, regular connecting-cords 17" and 36" long, and a focal-plane connecting-cord are available.



Monitor Automatic Hypo Drain

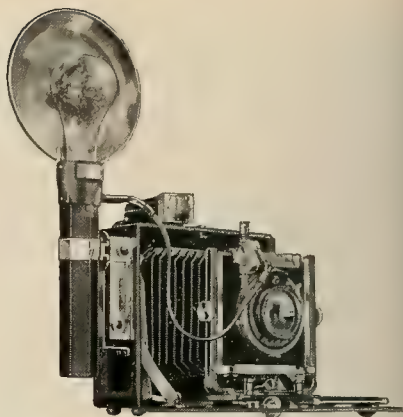
The new **Monitor Automatic Hypo Drain**, introduced by the Hollywood Movie Supply Co., is designed to convert any wash basin, sink or tub into an efficient washer for prints or negatives. It is constructed entirely of soft, scratch-proof rubber, with bright plated and plastic fittings. Its large overflow orifice is fully protected by soft rubber guards, and its three hypo outlets at the base are likewise shielded from floating prints. The Monitor drains all chemical solutions from the bottom where they settle, thus keeping the wash water fresh and clean; it maintains a constant water level, and speeds up the washing of either prints or negatives. In use the Monitor is merely placed over the outlet of the sink or tub in which the washing is to be done. Price is only \$1.00.

Redesigned with a streamlined die-cast body and featuring other improvements, the new "Model A" **Spot-O-Matic Enlarging Meter** has just been put on the market. This exposure meter for projection printing gives the correct contrast grade of paper for every negative. It also provides proper exposure time for every enlargement in the same reading, and automatically shows if negatives have been over or under-developed. Definite "speed" ratings for popular brands of enlarging papers are furnished in connection with "Model A," which can be used immediately without preliminary trials or testing. A new "dark-light" adjustment, similar to the "fast-slow" lever in a watch, permits employing Spot-O-Matic "speed" ratings without change... despite unusual darkroom conditions. Spot-O-Matic is manufactured by the Kinnard Company, which has moved from Chicago to 121 North Broadway, Milwaukee, Wisconsin. The "Model A" has been recalibrated to give it greater range. Refinements, it is claimed, have increased its accuracy to measure densities to the equivalent of plus or minus .03, which is well within the limits allowable in color work. The "Model A" Spot-O-Matic is being sold by leading photographic supply stores throughout the United States at \$5.95, which is no advance in price. It operates on 110-120 volts, AC-DC.

To fill the demand for a camera taking large-sized, fine quality negatives, Eastman Kodak announces the new 3A Kodak, Series III. Measuring $3\frac{3}{4} \times 5\frac{1}{2}$ inches, the pictures are postcard size; large enough to be impressive on album pages without resorting to enlarging. Rugged in construction, the 3A Kodak, Series III, has a trim case and back covered with genuine black morocco-grain cowhide. Metal side panels are black enameled with a design, of slightly raised lines, brightly polished. The hinged front cover opens at slight pressure on a release button located near the top of the side panel. The draw front comes out smoothly to infinity focus position and moves easily along the focusing scale at thumb pressure. The 3A Kodak, Series III, has a sharp-cutting Kodak Anastigmat f:6.3 lens of 170 mm. focal length, mounted in an accurate, smooth-operating Kodamatic shutter with a speed range from 1/10 to 1/200 of a second. In addition, "time" and "bulb" exposures can be made, and, by setting the delayed action lever, an interval of about 12 seconds elapses before the shutter is released. This new Kodak is equipped with a rising front, especially useful when taking vertical pictures of high buildings, trees, and so on, or to eliminate undesirable foreground. In addition to the brilliant waist-level finder that can be turned for vertical or horizontal pictures, a folding, metal-frame, eye-level finder is mounted on the side panel. The hinged back on the 3A Kodak, Series III, opens when a sliding latch is released, and a six-exposure No. 122 Kodak Roll Film is easily placed in the supply chamber after the two spool pins are drawn out. After loading, a large metal pressure pad holds the film in correct focal plane. Available as an accessory is a handsome black grain leather velveteen carrying case equipped with hand and shoulder straps.

The new Craig 8 mm. Enlarg-O-Editor incorporates all the advantages of the famous Projecto-Editor, combined with the added and exclusive feature of permitting the making of enlargements from selected frames of 8 mm. film, either black and white or Kodachrome. A unique, patented optical arrangement and shutter device allows the operator to instantly transfer the projected image from viewing screen to special built-in camera at back of unit. This camera is loaded with standard No. 127 film, and the negatives obtained therefrom may be used for either contact printing or enlarging. Thus the most life-like, candid stills can be obtained, since the Enlarg-O-Editor enables one to capture the choicest subject matter or most characteristic pose, selected from a length of active continuity. De Luxe Outfit, complete with Senior Splicer, Senior Rewinds, Film Cement and Base, \$59.50.

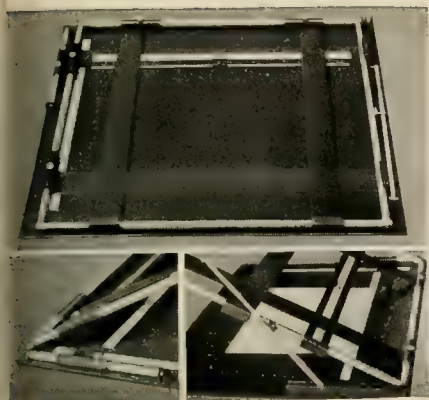
Burke & James, Inc., are now placing on the market a new Press Camera in the popular 4x5 inch size. This new camera with its many fine adjustments, new features and unusual refinements—plus its economical cost assures its instant acceptance not only by the press and professional photographer, but by the amateur and advanced worker as well. The camera features a durable, double



B. & J. Press Camera

extension bellows with heavy self-aligning V groove focusing track. A large size removable lensboard permits instant interchange of lenses. The lens standard is fitted with adjustments for lateral side shift, extreme rise and fall as well as swing and tilt. In addition, the bed of the camera may be dropped providing an extra valuable adjustment for unusual angle work. The camera back is fitted with an all around, folding type focusing hood. The ground glass focusing panel is a full 4x5 inches in size—permitting accurate examination of the image to the very corners of the plate. A unique system of ventilation eliminates the need for cutting the corners of the ground glass. The camera back is of the revolving type, permanently attached to the camera body. It may be rotated from horizontal to vertical position instantly. A telescopic type view finder, mounted on the top of the camera, is fitted with a compensating adjustment for parallax. The camera body and bed are of light weight aeroplane metal construction—leather covered—no wood parts being used. All standard press accessories such as range finder and flash equipment may be added—and as this equipment mounts directly to the metal body, it may be securely anchored in position. The tripod socket is of extra heavy design, centered in a large metal plate that is securely riveted to the camera body. Mounted on a tripod, it may be slung over the shoulder and carried with the assurance that it will remain rigid and secure. This new B & J 4x5 Press Camera will sell for only \$49.50, less lens and press accessories. Full information and descriptive literature may be obtained from Burke & James, Inc., 223 W. Madison Street, Chicago, Illinois.

The new Nikor Enlarging Easel, recently introduced by Burleigh Brooks, Inc., was designed to provide utmost convenience and true precision in handling paper stocks and setting borders . . . and thus banish these troublesome and sometimes costly darkroom problems. All paper sizes from $2\frac{1}{4} \times 2\frac{1}{4}$ up to 11×14 can be used with the Nikor easel; and regardless of the size used, the paper is always placed at the center of the



Nikor Enlarging Easel

asel. The paper is quickly placed into position by simply slipping the top edge under the specially designed and movable paper holder which holds it securely in position, and which has provision for quickly and accurately centering the paper. With all danger of the paper shifting eliminated, the masking bands are then quickly set and "locked" for any border width desired, from 1/8" up. Utmost convenience and accuracy in setting the borders are assured by having the bands graduated in half scales in both directions from the exact center of each end. In addition, the bands are extremely rigid, and operate on extra long and accurately machined bearings. This keeps the bands in positive alignment when locked, and prevents all possibility of shifting, which causes unevenly spaced borders. Other features of the Nikor Enlarging Easel include a top which stays up without the use of troublesome stops or catches; a thin but rigid all-metal base which permits maximum enlargements and use with automatic enlargers; a durable "safelight red" finish on the base for maximum darkroom visibility; and provisions for anchoring on the enlarger base where desired. For normal use, the easel base is covered with a soft friction material to prevent slipping. In design, construction and finish, this new easel fully meets the quality standards of all other Nikor products. It retails at \$7.50. Literature may be secured by writing Burroughs Brooks, Inc., 120 West 42nd Street, New York, N. Y.

The Crown Cable Flash Synchronizer manufactured by the Crown Instrument Corporation, 92 Liberty Street, New York City, is a new development in the synchronizer field. The basic unit consists of a standard cable release of high quality constructed with the synchronizing mechanism built into the portion that is normally held in the hand. The unit, therefore, imitates a normal cable release, and is utilized as such, but becomes a flash synchronizer when connected by means of a electrical cord to a battery case and reflector. In appearance, it looks like a ca

release with a slightly larger than normal breadth. It will operate with any camera which can use a cable release. It is self cocking and easy on the shutter and consistent in operation and timing. May be used with any battery case or reflector. Price of the Crown Cable Flash Synchronizer is \$3.95.

From the American Bolex Co., Inc., we have a report of the new, 1942, Cinea Film Cement which is heralded as a versatile cement for all kinds of films—acetate and nitrate—35 mm., 16 mm. and 8 mm. Cinea Film Cement is odorless, slow to evaporate when the cork is off the bottle, and works wonders in joining and holding secure film. Not an unimportant feature of this cement is the new glass container. It is in the shape of a pyramid . . . a distinct improvement over the old-style bottle because it cannot roll or tip over. The contents cannot spill over. Another improvement is that instead of having an old-fashioned brush, the Cinea Film Cement container has a glass applicator built into the plastic cork. This applicator assures you of an even spread of the cement on the film surface. For further details, inquire at your local dealer, or write to the American Bolex Co., Inc., 155 East 44th Street, New York, N. Y.

Announcements

Spectrum Products Co., Inc., manufacturers of the new Iso-Color Process of color printing, has just filmed a demonstration of the step-by-step development of a color print showing how it can be obtained from a set of Kodachrome separation negatives in 40 minutes. Because there are only 9 simple steps to the Iso-Color Process, and because of its extreme simplicity of operation, it is possible for the first time to show the entire development of a color print in a film running only 15 minutes. The 16 mm. film will be loaned to camera clubs and dealers at no charge, by the Spectrum Products Co., Inc., 33 West 60th Street, New York, N. Y.

When and by whom were film adapter spools and masks originated? Film adapter spools and masks have recently become quite popular because they make possible the use of 35 mm. and of Bantam size Kodachrome film in cameras which were originally built for films of larger sizes. A variety of such adapters and masks is now on the market for the

A \$250,000 wage increase to employees earning less than \$3,000 per year was announced July 23, 1941 by Agfa Ansco. Nearly three thousand workers benefited by the latest increase which brings the total wage increases for all employees to approximately \$500,000 since January 1, 1941. Accompanying the wage increase was an announcement of a more liberal vacation plan for hour and piece-work employees. While all hour and piece-work employees have always received one-week vacations with pay if employed for more than one year, the new plan calls for two-week paid vacations for all employees in this classification who have been connected with the company for more than three years. Hourly and piece-work employees with the company more than one but less than three years will still receive the usual one-week vacation with pay.

The Universal Camera Corporation makers of Cinemaster, Mercury and Unive announce that the production of Unive films is again in full swing with the completion of their new American film plant. The plant has been under construction for two years and is situated at Williamstown, Massachusetts. Unive films were formerly manufactured in Belgium.

complete summary of courses to be given during the year beginning October, 1941 for distribution at the Clarence School of Photography, 32 West 74th Street, New York City. Among the twenty courses described in the new schedule are: many in elementary and advanced principles of photographic composition, technical and practice; natural color photography; elements of advertising and graphic design; elements related to photographs; photo-albums; motion picture technique; and so on. All these courses are designed for the serious worker, beginner or advanced. A descriptive folder will be mailed upon request.

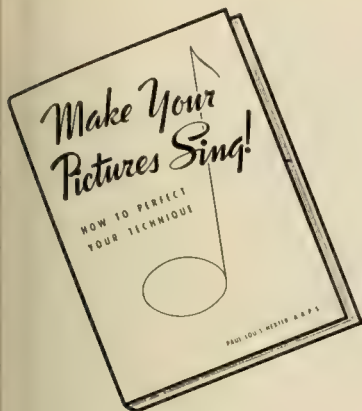
Charles Gaskin, formerly of the R. I. camera department, is now associated with Tabsons, Inc., 111 W. 52d St., New York City. He is now manager of the camera department and welcomes his old friends and patrons as well as his usual sales service.

electing Albert S. Howell to Honorary Membership, the Society of Motion Picture Engineers has given signal honor to one of its outstanding pioneers of the industry. Albert S. Howell is one of the founders of the Howell Company, a name known to all professional and amateur industrial photographers since their very inceptions, and the recognition by the S.M.P.E. crowns a long career of invention and research.

Mr. I. Rabb, formerly in charge of camera operations at Photopedia, a trade directory, has been appointed Advertising Manager of Photoshop's two retail stores at 32nd and 42nd Street of New York City.

Traveling camera fan who likes to take pictures and print his own photographs will find a new place to stay while away from his own darling. The Hotel, Chicago, announces that the United States sponsored by the use of its guests, will be opened in August. Membership in the club and the use of its facilities will be extended to all.

(Continued on page 569)



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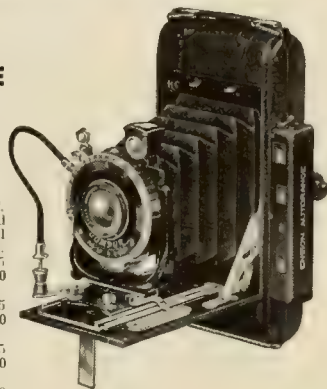
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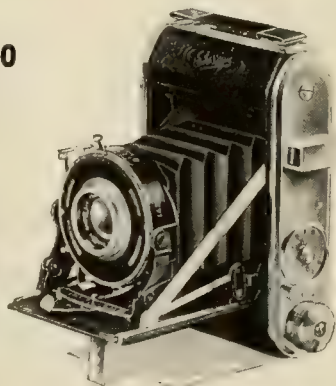
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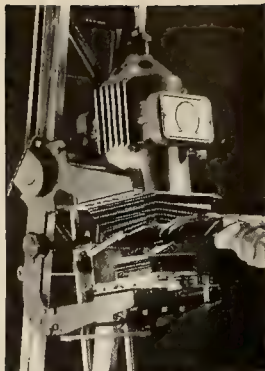
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each developer is good for. Modern fine grain formulas and others, published and secret alike, are considered in this illuminating way.

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While this book was written specifically for the amateur photographer, to enable him to understand and use correctly the many formulas offered for his use, it was prepared by a real scientist rather than an amateur or "practical" man.

The author, Edmund W. Lowe, is a chemist who has had a large share in bringing the art of development to its present state of perfection. His scientific knowledge and the results of his personal experiments with almost one hundred formulas and their variations are made available to you in this book. Any photographer who wants to understand development as well as follow "cook-book" directions, must read **WHAT YOU WANT TO KNOW ABOUT DEVELOPERS**.



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CAMERA CRAFT

(Continued from page 566)

without charge to any bonafide camera fan or member of an organized camera club, according to Joseph P. Binns, General Manager of the hotel. Conveniently situated on the fourth floor of the hotel, The Stevens Camera Club will open on August 16, coincident with the annual Combined Photographic Industries Convention and Trade Show. The Club is equipped with the latest devices for developing, printing and projection, Mr. Binns said. It will be managed by the Stevens' own staff photographer, Mr. City Abbott, who will aid traveling fans in processing their films.

We have just learned that Dick Rundle has been drafted and he is now a laboratory technician in the Medical Corps at Camp Gray, Rockford, Illinois. We understand that his job is mixing formulas which will not be too great a change for Dick. Photographers in the Bay area will miss not only the helpful instruction which he gave freely but also his fine pictures.

The Biological Photographic Association, an international group of photographers in the natural sciences, will hold its 11th annual meeting in the Hotel Buffalo, Buffalo, New York, September 11-13, 1941. The program, in which a number of outstanding photographers and other technical experts will participate, emphasizes this year methods and processes which are likely to contribute to the national defense. The annual convention, now well known to photographers through the pages of the photographic magazines, will again be a prominent feature of the meeting. Visitors are welcome. For further information write the Secretary, The Biological Photographic Association, University Office, Magee Hospital, Pittsburgh, Pa.

Mr. Phil Merritt, well known in the Northwest for his photographic connections in the Yellowstone and Mt. Rainier National Parks and for his work with Western photographic establishments, has joined the staff of Baxter's Camera Shop in San Francisco. Friends of Mr. Merritt will be pleased to know of his association with this fine photographic establishment. Baxter's carry a large stock and a complete line of photographic supplies for the amateur and professional and they specialize in Fine Grain Finishing and Miniature Cameras. Particular attention is given to direct mail orders and shipping charges are prepaid. Write Baxter's Camera Shop, 70 Post St., San Francisco, Calif.

Booklets and Catalogs

The Fink-Roselieve Company, Inc., 109 West 54th Street, New York City, has just published an attractive book describing the new F-R enlarger and offering much other material of interest. Book is available without charge upon request to the above address.

A new 52-page catalog covering the complete Lafayette line of cameras, accessories and photographic supplies is now off the presses and copies are obtainable by postcard request to Lafayette Camera, 100 Sixth Avenue, New York City, or by personal call at this or any of the branches in Chicago, Atlanta, Boston or Newark.

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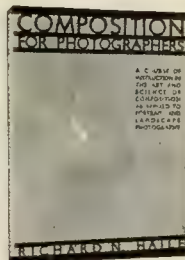


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Dear Sirs:

You will be pleased, we are sure, to learn of the great interest aroused by your good article about the SEE YOUR WEST color prints in September CAMERA CRAFT.

The little note you ran at the end of the article about our search for more color photographs of the West has brought in a response since the article appeared. Every mail brings twenty or more requests for the descriptive brochure of the subjects, conditions and requirements.

The requests come in on everything from postcards to engraved stationery—from points as widely separated as Montreal and Mexico City. Obviously, CAMERA CRAFT is widely and well read all over the country by men and women sincerely interested in photography.

Already, many good color transparencies have come in. That is the real test, of course, whether or not we uncover exceptional photographs in natural color. You might emphasize to your readers that, in fairness to themselves they should not dump down upon us numbers of their pictures.

Instead, please urge them to get the free brochure, learn of the type of material we are interested in, then submit three or four representative specimens of their work, together with a list of other subjects they like. This will save much time and postage to themselves and for us.

Many thanks from all of us for your understanding and productive help.

Cordially yours,
ROLAND MEYER.

Printer-Union
San Francisco, Calif.

Compliments for Mr. Buker

Dear Sirs:

I just received the September issue of Camera Craft on which the cover picture shows a cocker spaniel puppy.

I should like very much to obtain a photographic print of the cover. If you have on hand kindly let me know the size and price. If you do not have one I would appreciate it if you can put me in touch with the man who made this picture.

I think the cover this month is one of the most striking I have seen on any magazine in my time and the photographer is to be commended for his supremely fine work.

Yours very truly,
HOWARD F. CORNWELL.

Bozorth, Mont.

Dear Sirs:

Would it be possible for us to have the use of a print of the puppy picture you show on your good publication, September issue? We have a puppy food client, namely Tioga Food Co., and could use the picture of the puppy.

(Continued on page 587)



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COMPLETE IN EVERY DETAIL.

(Continued from page 585)

effectively on a folder for this puppy
would not in any way intimate that
puppy had been fed Tioga Puppy Food,
would simply use the photograph to
an attractive cover.

ur cooperation in this respect would be
appreciated. The photograph in our
able opinion is one of the smartest puppy
he we have seen in a long time.

Very cordially yours,

WILLIAM SPITZ, Vice-President.

Lane Agency
racuse, N. Y.

I case others are interested they should
dress Mr. Don Buker, Coshocton, Ohio.—

Cub Notes

Exhibitions

The New York Zoological Society has an-
nounced the success of the Second Annual
Photographic Contest of the Bronx Zoo and
Aquarium. 767 entries were received in
the year's contest. Winner of the \$50
prize in Class I was Albert Aboff, of New
York City.

The 2nd North American Salon of Pic-
ture Photography, which was displayed
at the California State Fair at Sacramento,
Calif., drew more than 800 entries from all
over the world. Two hundred prints were
selected for hanging by the jury of famous
photographers: Fred Archer, John Paul
Gardner and C. Stanton Loeber. In addition
to the prints, 200 transparencies were
displayed in a special color section from
which 78 were selected for projection at
the fair. The North American Salon of
Picture Photography is sponsored by the
National Camera Club and the California
Agricultural Society.

A collection of prize winning prints, as-
sembled by the Fotoshop, Inc., 18 East 42nd
St., New York City, is now being exhibited
at camera clubs throughout the country.
The schedule is complete until April 1942.
Any club interested in displaying the
collection after that date is invited to write the
Fotoshop address.

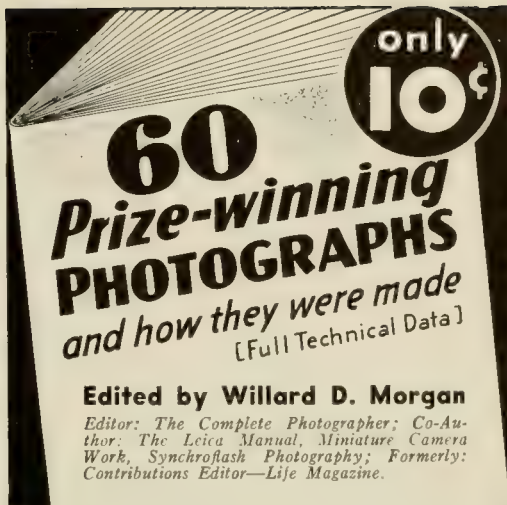
The California Camera Club of San Fran-
cisco, Calif., is now completing arrange-
ments to have the winning prints from
the monthly competition displayed at
various camera stores throughout the city.

Photographic Instruction

The California Camera Club, 45 Polk St.,
San Francisco, Calif., announce the open-
ing of the Fall semester of their School of
Photography. Classes will be offered for
both beginners and advanced workers. Ad-

(Continued on page 628)

OCTOBER, 1941



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Edward W. Koenig, E. Hartford, Conn.

*Silver Medal
Second Annual North American Salon*

Photography: What Now?

Nestor Barrett

THE face of photography is changing. The change is profound. It holds tremendous implications for every amateur who loves this graphic art, every salon exhibitor, every cameraman who hopes to compete with his fellows for a foothold on the narrow pinnacle of success.

Has some startling new technique been developed? No, the change is more fundamental than that. Has some sensational new product been placed on the market, some world-shaking piece of apparatus been invented? No, the change is more than a technological one.

What has come into photography in the last year or two is a deep, underlying, philosophical change. It is a complete reversal of the trend which has dominated our annuals and most of our salons for more than a decade. It is an alteration of our outlook on our environment and the way we have been recording it.

What does this mean to you and me?

It means that he who now recognizes what is happening and reorients himself has taken the first and most vital step toward laying the foundation stone of a career which may lead to his being the Weston or Brady or Stieglitz of the next decade.

What is this change? It is a complete swing away from the pessimism and in some cases the muckraking of the past to an outlook of optimism and national unity.

Franklin Judson, head of the motion picture division of the Art Center School in Los Angeles, speaking to the Second Western Amateur Camera Conclave very firmly asserted that the trend in documentary motion pictures was now definitely optimistic. Said Mr. Judson:



"Twilight Etching"

Shirley M. Hall, San Marino, Calif.

Second Annual North American Salon

"So far in documentary film making we've been going around pulling the lids off garbage cans. We have gone through a decade of soul searching and it has been a very healthy thing, but I do believe the future of the documentary effort in stills and films as well, is going to be a more optimistic attitude. The reason, perhaps, is this: we are entering, for one thing, an extremely nationalistic period. We are going to be concerned from now on with the things we have to be proud of. . . . The documentary film is going to be an inspiring record of our times fifty years from now."¹

One man's opinion? To be taken, "*cum grano salis*," with a grain of salt, you think? Hardly a week after Mr. Judson had made his flat assertion that a new photographic day was dawning, the entry blank for the highly significant print salon "*Image of Freedom*" being held this fall in the Museum of Modern Art in New York arrived in the mail. Let any doubters who still remain read this excerpt from the citadel of modernism:

"PHOTOGRAPHERS: Let us look at these United States . . . now, in these critical days, when our lives, and all that gives them meaning are threatened:

"What gives our lives meaning? Why do we feel that, with all its faults, this is the place we want to live? Why do we feel that the foundations of our national life not only are unshaken but capable of supporting



"Muggs"

Kay Hull, San Francisco, Calif.

Second Annual North American Salon

a greater, more human structure than any nation, or combination of nations, has yet built.

"We have seen searching photographic studies of the waste of life and land due to abuses that we allowed to accumulate, and we have seen the beginnings of a reclamation.

"Now let us see with a vision equally exact, the power which can remedy these faults . . . the vast, unconscious power of millions of us living on American earth, the spirit born of our thoughts, our ways, our homes, our jobs. Let us look at the earth, the sky, the waters. Let us look at the people—our friends, our families, ourselves. How do we work, how do we play, how do we live? What are our resources and our potential strength? What is our past, our present, our future?"²

Can there be any further doubt that photography has entered a new era, a decade, perhaps, when the measure of beauty will be based on something beside studies of weather beaten backhouses, rickety slums and f:64 essays on the hookworm victims of some Tobacco Road?

Now what are the implications of this changing outlook as applied to our technique? If the future may be judged by the past there will be some swing away from the harsh glossy print. In fact this trend is already under way. One does not now see so many glossies in the better salons as were seen a year or so ago.

This swing away from harsh realism will bring into vogue some almost forgotten processes. The more romantic outlook of the future will demand their use, with the probability that bromoil, paper negatives and possibly carbro will have another day of popularity.

A tributary stream of influence is also flowing into the river of change. The vast army of amateurs who have entered photography during the last ten years have needed this preliminary training to bring their technique to a point where they can pursue some studies into the allied photographic processes with profit. It is probable that there now exists a multitude of amateur photographers who have exhausted the basic techniques of straight photography and are now on the threshold of the more enriching experiences awaiting them in the manipulative branches of the art.

The period of stark realism in art is about closed. When times are peaceful and life is good, the occasional vicarious thrill of realistic art is stimulating and intriguing. But today we live in a sorely troubled world, a world in which each day's news, each day's truth, is far more sordid and ugly than any art form can portray. What the world wants now is not more trouble, more disunity, but escape from it all. It wants beauty and memories and nostalgia. What the world wants it will have in art, as in everything else.

A recent study into picture preferences of newspaper and magazine readers covering the past ten years, made by an advertising agency, showed that the war had produced a marked effect on readers' tastes. In the latest tests, contrary to popular opinion, it was not pretty girls, babies or animals which led the list, but photographs of scenery and travel. According to those making the study these results clearly indicated the "escape" mechanism at work in the public mind, the desire to "get away from it all."³

All this is not to say we must go back to the fuzzy-wuzzy days, to the



"Richard"

F. F. Lockwood, Laguna Beach, Calif.

Second Annual North American Salon

days of exaggeration and sentimentalism. How far to the right the pendulum will swing no man can now predict. It went to the extreme left on its last movement and some may now expect an equal reaction in the opposite direction. Even famed surrealist artist Salvador Dali looks for a long term trend away from present art philosophies. Says Dali:

"Our present world is a world of analysis. Ever since the last war, especially, people have been breaking down, particularizing, concentrating upon smaller and smaller facets of experience. The result is unintelligi-



David Darvas, Cleveland, Ohio

Second Annual North American Salon

bility, disintegration, chaos. We are seeing the end result now in the second World War. After the war synthesis will follow analysis, the universal will emerge from the multitude of particulars and mankind will know what to believe. The facts of science will remain the basis, but the emphasis will be on structure rather than on its opposite. And the artists will create the myths of this new faith."⁴

It is probable that the future will see isolated cases of extremes just as a few went too far with their so-called realism in the last few years. However, neither can be said to represent the trend of photography in their period.

The poet Swinburne says "change lays not her hand upon the truth." Art is truth and truth will still prevail if in somewhat changed form.

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Water And The Developing Solution

Richard H. Behrens

THE advent of the miniature camera has focused the attention of professional and amateur photographers on securing the best possible development of the negative. Photographers have learned that negatives which may be enlarged satisfactorily as much as 10 or 20 times require a perfection which seldom concerned the average photographer of yesterday who took pictures in 5x7 or 8x10 inch sizes and made prints by contact. It is now apparent to the world of photography that attempts to duplicate the large, fine-grained contact prints by the enlargement of miniature negatives requires close attention to all factors influencing development such as time, temperature, and type of developer.

Research work on developing agents and developing methods by manufacturers of photographic materials, professional and amateur photographers, has brought to light many old and new developing agents and procedures capable of meeting the requirements for fineness of grain and uniformity of developing action. That chemicals of consistent purity were necessary to obtain these results was a foregone conclusion. These the average photographer has been able to secure from the various chemical manufacturers. The one element which he has often neglected to take into consideration has been the water used to dissolve these chemicals and to dilute his stock solutions.

A water may be suitable for human consumption, free from dangerous bacteria, objectionable taste, odor, and color and yet may be poorly suited to the preparation of photographic solutions. Such water might easily

contain substantial amounts of mineral salts of the alkaline metals, as well as heavy metals, all of which could modify the delicately balanced developing solution sufficiently to prejudice the production of satisfactory negatives.

Most natural waters contain some dissolved oxygen derived from the air with which it was in contact. The immediate effect of this oxygen is to oxidize some of the developing agent and thereby reduce its effective strength in the solution. An indirect effect of oxygen in water is to increase the corrosion in metal pipes or other metals used in its storage and distribution. Where this occurs appreciable amounts of the heavy metals may find their way into the developer resulting in a tendency to negative fogs. Carbon dioxide, which is not an uncommon ingredient of potable waters and which may be absorbed from air dissolved in the water, may bring about considerable modification in the alkalinity of developing solutions. The problem of gaseous contamination is usually easily met by simply boiling the water slowly for from 10 to 15 minutes thus expelling the dissolved gases to a large extent.

The problem of freeing water of its mineral content is less simple. This mineral matter has been dissolved from the decomposing rock and soil through which the water has percolated. Mineral matter in water is classified as alkaline or saline and it is due principally to its presence that water is rendered less suited for use as a solvent or diluent in developing solutions.

All natural water originating in the earth becomes "hard" to some degree as a result of solution of mineral matter. This hardness is usually expressed as parts per million. Soft water is considered to be, by convention, any water containing 100 parts or less per million of dissolved mineral matter. Water containing from 100 to 200 parts of dissolved mineral is regarded as moderately hard while water containing from 200 to 500 parts per million is regarded as hard water. Water containing more than this amount is called saline. Such water is usually classified in the special spring or mineral water category.

Hardness in water is most commonly due to dissolved calcium and magnesium salts largely in the form of carbonates. These salts have a distinct capacity of modifying the alkalinity of water which, in finely balanced developers, can contribute to the coarsening of the grain of negatives developed in solutions made with them. While the actual amount of minerals dissolved in the average water supply may be considered small, even in waters considered hard, the preponderance of water in the stock solution and the diluted developer is large so that the effect of water hardness may bulk larger than the small mineral content of the water might at first indicate.

Much research work has been done by industries using large amounts of water in an effort to avoid some of the difficulties caused by hardness. These efforts have led to the development of various methods of softening waters. From the standpoint of the laundry and the boiler room, for example, these methods have yielded gratifying results but from the standpoint of photography these processes have not served a very useful purpose. The zeolite process is one of these well known water softening methods



"Little Evacuee"

Hugh Frith, Vancouver, B. C.

Second Annual North American Salon

which removes most of the calcium and magnesium from hard waters, but, unfortunately for photography, replaces these with soda, which is not often a desirable contribution to a developing solution.

Filtration, while removing organic and other suspended matter from water, does not often decrease the hardness of water appreciably. Iron and manganese are sometimes to be found in water in the order of as high as one part per million. Even in these small concentrations these metals are objectionable in waters intended for photographic uses.

Salts of heavy metals like copper, zinc and tin may find their way into water from metal containing vessels, pipes or other water dispensing apparatus. The presence of these metals in developing solutions in appreciable amounts is conducive to the formation of fogs and to the coarsening of grain in negatives.

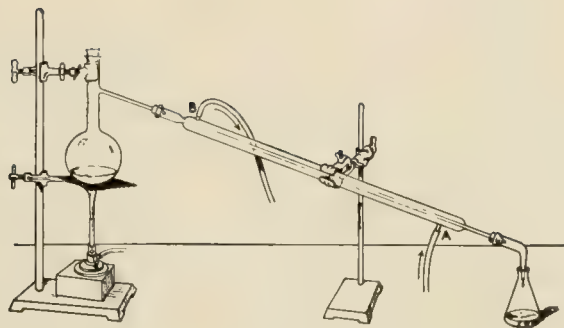
The introduction of chlorine or its compounds to free water supplies from living organisms is sometimes carried to rather high levels during periods of danger of contamination. Investigations have shown that little chemical change is produced in waters so treated with the result that chlorine in the amounts commonly used in water supplies is of little concern when used in developing solutions.

Where relatively soft water is used in developers little difficulty is encountered in securing consistent results satisfactory to the vast majority of practical photographers. On the other hand where water is known to be hard or is otherwise known to contain products deleterious to the developing process the careful photographer may experience difficulty in securing the results he has a right to expect.

The most satisfactory solution to the problem of purity of water in developing solutions is the use of distilled water. Used in the preparation and dilution of developing solutions it assures constancy of results. Distilled water, freshly prepared, or which has been kept in closed containers, is largely free of dissolved gases and is almost completely free of dissolved mineral matter. Bought cheaply in 5 gallon bottles its use will repay the photographer who is satisfied with only the best results. Rain water, when gathered under satisfactory conditions and briefly boiled, represents a type of distilled water which is second to commercial distilled water in quality and may often be used to advantage in preference to ground waters. If gathered from dirty roofs it may be worse in its ultimate effect on the developer than ground water.

A constant source of distilled water may be obtained by the advanced amateur or professional photographer by the purchase of one of the standard automatic stills from chemical laboratory supply companies. Small stills of this type, costing little more than a cheap enlarger, will deliver automatically several gallons of distilled water in a few hours. For those who may wish to distill only small amounts of water, chemical apparatus consisting of a distilling flask, a glass Liebig condensor, a few feet of rubber hose and some form of heater, may be set up. When set up as shown in the diagram all of the distilled water needed by the average photographer may be produced in the course of a few hours with only intermittent attention. Such stills may be operated without a permit from the Internal Revenue Service.

Distilling Apparatus



This apparatus consists of a glass distilling flask attached by means of a cork to the glass condensor through which water is lead through the lower (A) and flows from the upper rubber tube (B). The whole apparatus is held in position by means of laboratory clamps on a ring stand. A Bunsen laboratory gas burner is shown in the illustration. An electric hot-plate or small alcohol lamp may be used in place of the gas burner. The whole apparatus needed may be purchased for a few dollars and assembly is simple.

Accent On Framing

Bernard G. Silberstein

YOU have probably heard the term "emphasis" used frequently in connection with photography but if you haven't tried to visualize the various methods of achieving emphasis in your own pictures, you've been overlooking a very important element in pictorial success. We all learn sooner or later that we must carefully rationalize our picture taking and processing if we are to consistently turn out satisfactory pictures, and whether you are one of the country's few outstanding pictorialists or are classed among the larger group of less known photographers, there are certain fundamental ideas such as the use of emphasis which you will inevitably have to follow to improve your pictures.

There have been occasional articles written on the general subject of composition but I am interested here in talking about just one single aspect of composition. In my opinion the lack of emphasis in pictures is responsible for more photographic failures than any other major element.

It seems that many photographers do not realize the great importance of carefully planning for emphasis in advance of exposure. Such planning is an absolute necessity for the exposure must be adjusted to produce the desired emphasis and the subsequent steps of developing and printing must also be directed toward the same end.

One of the most important aids to achieving emphasis is by means of effective framing of the material involved. There are of course an infinite number of ways of framing your picture but a specific list of possible frames would include doorways, windows, trees, sides of buildings, human figures in the immediate foreground, symbolic frames such as cemetery crosses, wooden legs and crutches, and as you can see, the list could go on indefinitely. The photographer's skill of course comes into action when the proper frame is selected and the more imaginative the photographer, the more successful and unusual will be the result. Next the question of the position that the material must take in the frame must be decided in order to fill it in a satisfying manner. Keeping the nearby frame as well as the more distant objects in focus requires a small aperture for great depth of field, and we must also consider the speed of the action, if any, to be stopped with the shutter. Perhaps a faster film will be required to get sufficient exposure at the desired stop and shutter speed.

Depth, or the illusion of the third dimension, is always a most desirable quality in photographs. We should not overlook the fact that such framing as is described in this article is one of the best devices available for building the appearance of depth into our pictures.

The first four illustrations that I have included bring out the advantage of framing over taking a shot of the same material without a frame. In Figures 1 and 3 we are conscious of the disturbing elements in the background and it is impossible to subdue the highlights satisfactorily near the edges in order to concentrate our attention on the figures. Both unframed pictures lack force and meaning and Figure 1 especially would be immediately dismissed as an uninteresting picture. The framing in Figures 2 and 4 dramatizes the subject matter and lifts it out of the record class although I will be the first one to admit that neither of these are truly successful pictures. They are shown to illustrate certain points.

Figure 4 points to a condition which must be carefully avoided. Here the frame is overdone. It has become much too prominent and inextricably confused with what was intended to be the principal subject matter. Obviously if the gates had been opened up so that the horsemen could be clearly seen, the gateway would then act as an effective frame.

Passing on to Figure 5, you can read whatever symbolism you want into the cemetery crosses at the bottom of the picture but the fact remains that they make the scene more pictorial. The tree trunk and the branches of course complete the frame. Figures 6 and 7 are successful principally because of the character of the frame, in one case the lattice type of grille, and in Figure 7 the rugged old gateway to the church courtyard. Window frames are always useful, especially if they are broken up by small panes

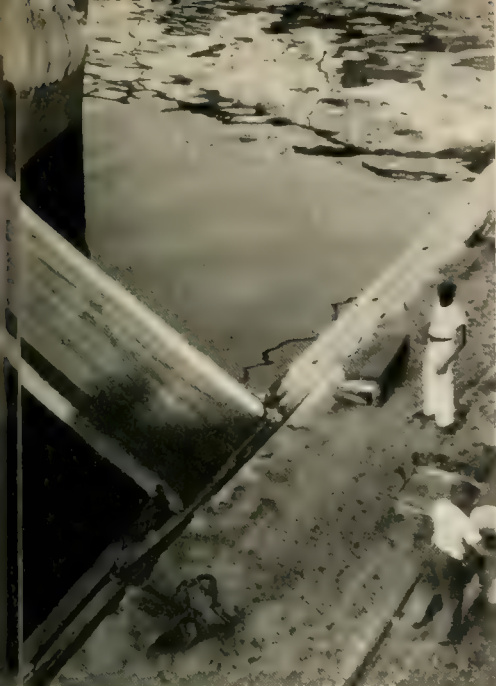


Figure 1



Figure 2

Figure 3



Figure 4





Figure 6

rather than several large pieces of glass. Great depth of focus is especially necessary in this type of picture because of the nearness of the window frame. The frame in Figure 10 owes its interest to the simplicity of the foreground and the trees which frame the distant snow capped volcano. The concrete vase on the left adds just enough unbalance to the symmetry of the two trees to make the picture successful.

Of course emphasis can be achieved in the original exposure if you have control over the source of light or if the subject matter can be moved into a light beam where the surrounding area is proportionately darker. Studio photography offers the advantage of complete control over the light sources and the problem of adding emphasis is simplified to a great extent as a result. Spotlights are the perfect answer to studio control and proper emphasis of the hands, the hair, etc.

The next step in our problem is intelligent processing of the negative so that the highlights that you have carefully tried to include in your picture are not blocked up by too long a development. Finally we come to the enlargement and it is here that the greatest opportunity for skill and imagination enters. The eye must be kept within the picture and frequently extra shading of the sides, top or bottom produces this result. Figure 7 required extra shading on all four sides in order to make the church and the background more interesting. Distracting highlights can be toned down and the picture progressively built up so that the most interesting area is the brightest or is silhouetted against the lightest back-



Figure 5



Figure 7



Figure 8



Figure 9

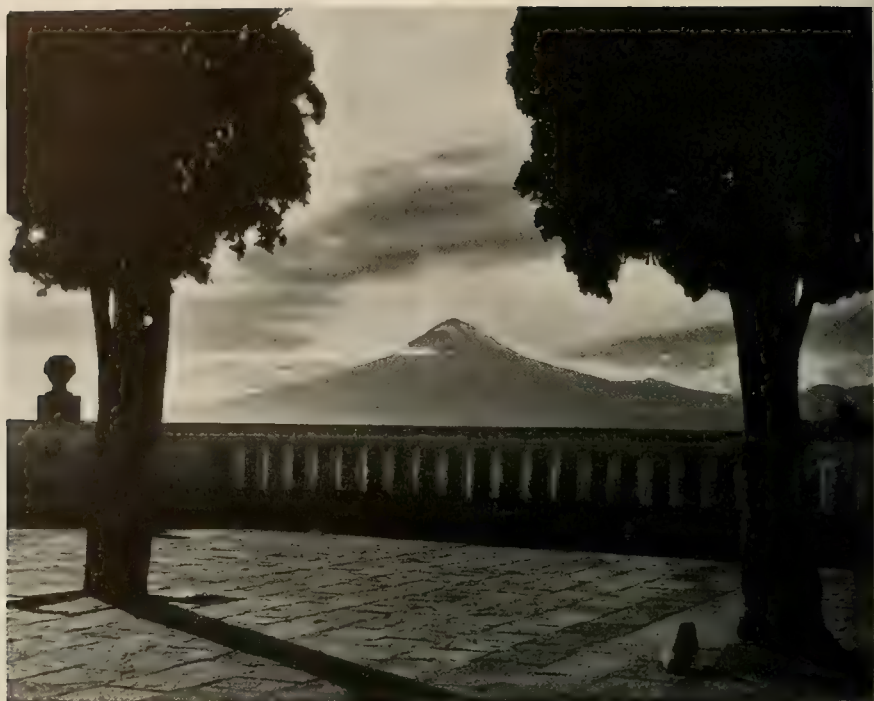


Figure 10

ground and then the surrounding areas gradually darkened in tone as they recede to the edges of the picture. The paper negative and the bromoil processes of course can help in the exercise of the necessary control over the final picture.

The principal object of applying emphasis to a picture is to center the interest, and one of the tests of a successful picture and its use of emphasis is to rapidly glance at a picture and then away from it and determine from this whether you carried away a strong visual impression in your brief glance. Trying the test on Figure 1 only creates a confusing and negative result whereas the remaining illustrations all combine some form of emphasis.

While I have had to limit the number of illustrations to only a few examples, there obviously are many other applications where the principle can be used to advantage. For example, in indoor "genre" work, a spot light perhaps on the hands of an aged woman would center the interest on the idea of the picture, namely, to convey the feeling of age through the wrinkles on the hands. In straight portrait work, a dark background with a spot light on the background directly back of the head again produces the desired concentration of interest. In conclusion it must be born in mind that all of these pictures were carefully planned for their pictorial effect and all serious amateurs can achieve the same results with practice and a full appreciation of the importance of carefully planning the picture before exposure.



"The New E-String"

Chas. S. Martz, A.R.P.S., Aurora, Mo.

Second Annual North American Salon

Contact Quality By Projection?

C. E. Potter

HAVING had the opportunity to see a group of Edward Weston's pictures at a recent exhibition, I could not help but wonder whether it would be possible to duplicate their quality by projection—and if not, why not? Neglecting the mechanics of the thing, it hardly seemed reasonable that a man would pack an 8x10 view over hill and dale if he could obtain equally good results with a smaller camera and subsequent printing by projection. No photographer is going to burden himself with excess weight—to say nothing of paying an additional price in higher film costs—therefore I was quite interested to find out in just what manner and to what extent the users of these large cameras are compensated.

The answer would seem to be found in determining whether any fundamental difference exists between the two printing methods. If the negative in either case modulates the printing light with equal efficiency, the two prints should be pretty much alike, but because of lens losses and other sources of stray light encountered in projection, printing by contact should be superior in this respect. Such losses, whether present in the camera or enlarger, can only result in degradation of the image.

In an enlarger, this would have the effect of placing a limiting value on printable gradations in the higher densities, or, in a general sort of way, the efficiency of modulation would drop as negative density increases. Very obviously this cannot be stated axiomatically since much will depend upon the distribution of such densities, but I believe that this will be the tendency.

Consider, for example, a night shot made of a tall, narrow, brilliantly lighted building outlined against a black sky. According to the above,

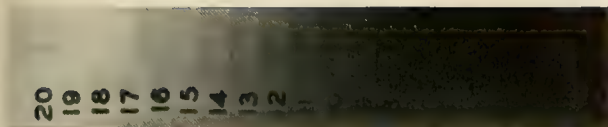
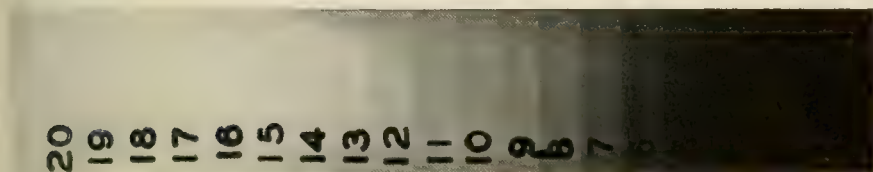


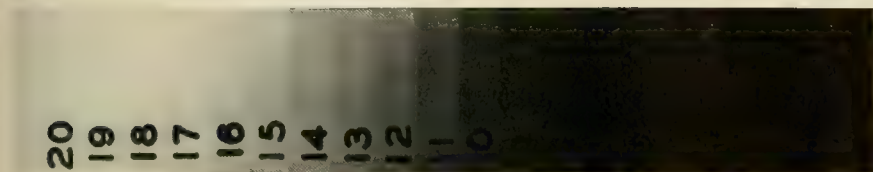
Figure 1a



Figure 1b



Upper, Figure 2a



Lower, Figure 2b

the more dense the image of this building is on the negative, the more difficult it will be to show good gradations in the print. Furthermore, it would seem that this difficulty would increase as the size of the image decreases since the large amount of clear space surrounding the image would allow more light to hit the lens and cause a greater amount of internal reflections with consequent increased degradation.

To cite an extreme case, place a piece of black thread or similar small opaque object in the negative carrier and note how much easier it is to print it gray than if the same object were placed in contact with the paper. Ideally, it should be impossible to print such an object other than white, but since it *can* be printed gray, the light responsible for the phenomenon must be stray light which can have no part in producing gradations. If this is true, it would seem reasonable to at least hypothesize that, under certain conditions, the contact print will show superior highlight gradations per unit shadow detail—or for similar highlight gradations there will be better shadow detail. In other words, the contact print will be a more accurate

reproduction of the negative. Whether it is better or more beautiful, is of course, a moot question.

In order to check these ideas, prints of a small wedge including a range of densities from .22 to 2.2 were made by both methods. Exposures were adjusted so as to place the extreme highlight at various steps along the wedge, the idea being to determine the relationship, if any, between high light gradations and density. The enlarger used was a 4x5 Solar, a pseudo-condenser affair, so constructed as to permit making prints of 1:1 ratio thus facilitating a direct comparison with contacts from the same negative.

While making the contact prints, it was a very simple matter to place the white step at any point on the wedge, but such was not the case with projection. If, for instance, it was desired to include the first ten steps only—with #10 white—then #9 would show practically no difference in tone. And if sufficient difference were obtained between #9 and #10, the latter would not be white—in fact most of the time (under these conditions) the remainder of the wedge between #10 and #20 would be gray. In Fig. 1, for example, note the difference between (a) made by contact and (b) by projection. Both prints received the same exposure.

If stray light were responsible for this highlight degradation, masking to the edges of the wedge should effect an improvement. Accordingly, the prints in Fig. 2 were made—(a) with the masks withdrawn and (b) placed in the position just described. Again, both received the same exposure, or more accurately, that exposure required to produce the same tone at the unmarked step above #20. The superiority of (b) is quite evident.

These results apparently confirm the current opinion that the negative for projection should be on the thin side, but for the sake of a double check, additional negatives were made from which prints are shown in Figs. 3 (projection) and 4 (contact). The numbers refer to negative densities corresponding to the points marked by the arrows. These illustrations are self-explanatory, but they do furnish additional evidence that the quality of projected prints is dependent on negative density to a far greater extent than that of contact prints.

In connection with stray light, one cannot help but question the practice of basing exposures on negative densities. If the making of test-strips is obnoxious, it would seem more to the point to make all measurements on the easel by means of a photometer of some sort. This would account for *all* the light at a given point and thus constitute a measurement of the projected or effective densities. That this is advisable may be seen very readily by examining Fig. 1(b).

While the foregoing illustrates 1:1 projection only, the same conclusions apply to larger blow-ups as well. However, it is obvious that the greater the degree of enlargement the more apparent any defects will become—in which case, of course, the relative superiority of the contact print will be even more evident.

Returning to the matter of whether it is possible to duplicate contact quality by projection, experience gained in attempting to do so forces me to the conclusion that it isn't. However, I do believe that it can at least be approached by avoiding dense negatives and masking as close to the image as circumstances permit.



Figure 3a



Figure 3b



Figure 4a



Figure 4b

This Business Of Lighting

Curtis Reider

PHOTOGRAPHY is the first art ever to grow up with its roots in the bedrock of science. All the previously developed mediums of expression, painting and sculpture, drawing and etching, have had little or nothing to do with the laboratory; they have resulted instead from man's natural ability, inherent in most cases, and progress down through the centuries has been relatively unimportant so far as technique is concerned. Leonardo da Vinci, painting without the vast store of tradition available to the modern artist, was a more perfect draughtsman than any workman living today, and Titian, working at a time when the laboratory was still an alchemist's hideaway, used colors as brilliant, as luminous and as articulate as anything our modern chemists could produce with all their complex instruments and their knowledge of spectrum.

But in photography things are different. The early workers, men such as David Octavius Hill, Atget and a few others who came to this new medium fresh from the realm of paint and draughtsmanship could have done even greater things had they lived today and known the use of modern lenses, color corrected film and the use of filters, to say nothing of the scientific instruments which have come to the aid of photographers in the past ten years. It is even reported that had it not been for the great inefficiency of early photographic technique the painter Degas would have used the camera, but like any great artist he refused to work in a medium with which he could not articulate his feelings and ideas with clarity. As it happens, however, Degas was influenced by photography and in return he has left us with a heritage of design and composition which has influenced photographers ever since.

But today the medium of photography is well organized and accurate. We know that by following the scientific rules governing exposure, develop-

Figure 1.

Two lights were used, one of which, quite obviously, was a spot which hit the white sheet background directly behind the shoulder and neck line. The other light was a Victor photo-flood reflector with a cloth diffusion screen. This light was placed far to the side of the subject and an assistant held up a sheet of cardboard to prevent the light from hitting the background. The white walls of the studio gave just enough reflection to prevent the left side of the face from going into too deep a shadow. Exposure was for the highlight area of the face.



ment etc., we can translate our ideas onto paper bringing into our subject matter whatever quality we might wish to give it. Only three things are necessary in making a photograph. First, an appreciation and a respect for the inexorable laws which underlie its chemical processes; second, a technique of impeccable workmanship, and third, a knowledge of what differentiates a *picture* from a mere casual snapshot.

The first of these subjects, concerning the chemical processes we can learn by merely reading the instruction sheet enclosed in each package of film and by following it as carefully as we know how. The second necessity we can acquire not so much through experience as through the application of what we know, by simply doing, and doing with extreme care and precision the job on hand. This may sound a bit too simple to readers accustomed to all the bric-a-brac and gadgetry of picture making, whose darkroom shelves are loaded down with chemicals, developers, reducers and fancy formulas, but in reality the whole business of photography is very simple and the more bric-a-brac, the more superfluous formulae, the more hokus-pokus you can eliminate the nearer you will come to good, straight, two-and-two-makes-four photography. Which, in the end, is the best kind anyway.

But those two phases of picture making concern only the technique. When it comes to the actual picture, to the third phase mentioned above, there is not much that anyone can tell you. Personally, I have always felt that rules of composition are valuable only as a starting point. They are not the whole story by any means. Picture making is too individualized a business, too interdependent upon personality and taste to be much influenced by rules or regulations. Art cannot be regimented; all great pictures have resulted not so much by an acceptance of established order, but rather

by a rejection thereof. If you should ever wish to embarrass an "expert" on the "rules" of composition ask him which came first, the great pictures or the rules which are supposed to govern them.

And so it was with these personal feelings in mind that I undertook to write this article. First, I do not believe in rules. I abhor systems, having always felt that rules and regulations were something to be observed only in the darkroom where the scientific order remains, for the most part, inflexible. But outside of that I personally feel that we make the best pictures by following our own judgment and by using our own eyes in preference to other peoples rules.

Most amateurs have a rather complicated idea of lighting. They feel that the professional results are due to his equipment, that to make a good portrait, for instance, one should possess a half dozen spot-lights, a strip light, an oval light, a mercury vapor light and a lot of other fancy gadgets totalling an expenditure of many hundreds of dollars. They have been misled by publicity releases of Hollywood sets, or pictures in camera magazines of Steichen, Breuhl, Keppler nestled among a battery of high-priced, high-powered lighting equipment, and the amateur has merely wagged his head and said, "No wonder I can't do it. I just haven't got the stuff to do it with."

Well now to be perfectly truthful, lighting is a very simple thing. Some of the greatest portraits ever made have been made with only one light. Good pictures of all kinds, even fancy illustrative stuff, have been done with only two or three simple photofloods. Many would agree that one of Steichen's finest photographs is an outdoor portrait of Carl Sandburg. In fact when the average photographer, unless he is another Steichen or Breuhl, attempts to use a half dozen lights he usually runs amuck and winds up with a batch of failures on his hands. Give the average photographer, especially the amateur, a half dozen lights and tell him to make a portrait and he will attempt to use them all. More pictures have been ruined by too many lights than have been ruined by not enough. The wise workman learns to use a few lights well, starting with only one or two, and then gradually working around to the use of others.

The illustrations accompanying this article were all made with simple equipment, the type which most amateurs have in their possession. Regular photoflood reflectors were used; no fancy Klieg lights, no expensive mercury vapor tubes, no power consuming strip lights or flood batteries such as you might find in Hollywood (although nowhere else to the best of my knowledge). In the one or two cases where a spot was used I found the inexpensive Photoflood Spot to be quite efficient.

The photographer should learn to think of light primarily as a means of revealing the subject in its simplest and most honest terms; not as a means of obscuring the subject behind a tricky facade of conflicting high-lights and shadows.

It is always well to remember, too, that when you make a photograph the picture itself is the thing which counts, not the equipment with which it is made, not the method by which the final result is achieved. The



Figure 2.

One light only slightly behind and to the right side of the camera. Subject about eight feet from the white background.

average amateur usually works only with his friends, and the friends of most photographers are, *ipso facto*, very tolerant people, willing to be experimented upon and even accustomed to sitting patiently while you rush about, perspiring profusely, trying to arrange first this light and then the other, in an effort to achieve something akin to your original idea. So you really have nothing to worry about. You can let your ingenuity have a field day. If a light seems to be objectionable, if you want to keep it off an ear, for example, or off the clothing so that the face itself will be the center of the picture and everything subdued to it, try placing a book on a table so as to cast a shadow, or if the light is too high for this set a bridge lamp in a position, just outside the picture so that its shade casts a shadow from the floodlight. If you are doing a still life, there is no end to the number of tricks you can resort to. Lay an ordinary hundred watt bulb near your main object, place two books near it so that only a tiny beam of light hits the spot that is important. Put a little tin-foil reflector here or there. Set a magnifying glass on end for a tiny "hot-spot." Try placing your objects on a sheet of glass slightly above the set and underlighting them. Try placing a little pocket mirror here or there for reflectors. There is no limit to the tricks that are possible . . . And if you think all this is nonsense I'll tell you where some of these ideas came from. I once saw a photograph of Anton Breuhl at work on an advertisement for Rittenhouse Square whiskey. He was resorting to many tricks of just the same type as I have described here.

Remember, the picture is the only thing that counts.

Now there's another side to lighting, too, as we all know. There's the problem of exposure to be dealt with. We know that the eye can adjust itself much better to relative light values than the photographic emulsion. Suppose, for example, that you have a front light turned on a portrait

subject for the purpose of opening up the shadow area and you then wish to build on that light by adding another one shooting down from a 45° angle overhead. How are you going to know whether or not the second light will "burn out" the highlights, leaving instead of a pleasant highlight a mere washed out light area. Trial and error, of course, will solve the problem, more or less, but trial and error is not good science. How much better to do the thing scientifically—by using a good, reliable exposure meter.

There is much difference of opinion as to the exposure meter. Many professionals, having gotten along without one for years, believe it to be a mere gadget and never trouble themselves to carry one with them. Others, including Edward Steichen, the greatest professional of them all, believe the meter to be a scientific instrument and as such certainly superior to the human eye when it comes to measurement.

That a good meter is a good instrument few will deny. But the trouble is that most people do not know anything about the meter. They do not trouble themselves to use it properly.

I have seen a photographer about to make a portrait stand fifteen feet from the subject, wave a meter in the general direction of the subject and then go ahead with his exposure. I have seen people taking a picture of a building point an exposure meter at an asphalt road, read the light and set their lens. People occasionally point meters directly at a light, wondering later on in the darkroom why the negatives are underexposed.

As a matter of fact, put a good meter in the hands of ten photographers—even very good photographers—and every one of them will get a different reading. The best that anyone can do is to learn how to use the instrument to his own best advantage.

For example, if you are making a portrait take a reading of the shadow area. Get up as close to the subject as possible, *without creating a shadow with either your body or the meter*. Then take a similar reading of the highlight area, usually the forehead. Make a few test exposures in this manner, exposing one for the highlight, the other for the shadow and determine for yourself which negative is better for printing purposes—*your* printing processes. Never mind the old controversy about which to expose for. Some workers expose for the shadows, some for the highlights, some don't know one from the other, but exposure depends entirely on what you are after, what type of negative you can work with best and the best way to find that out is to work it out for yourself.

Important also is the ratio between light intensities. In fact therein lies the main value of a meter. Most anyone, with a few hours experience behind them can judge exposure sufficiently well to get some kind of a negative, but few people, very few indeed can ever judge accurately the difference between brightness values. Suppose you want a pure white background. You read the background and it is only one point above the reading on the highlight of the face. Result: it will be a light gray on the finished print. Suppose it reads less than the face. It will be a darker gray. Suppose it reads much more, so that when the arrow is set on the reading for the face the background reading goes beyond the meter's 0.



Figure 3



Figure 4



Figure 5

In Figures 3, 4 and 5 a bust was used to show the simplest possible use of light. In Figure 3 one light was placed behind and only slightly above camera lens level. Another light was placed above and to the right of the subject at approximately 45°. Both lights were diffused. The purpose of the light behind the camera was simply to open up the shadow area. By turning it off we get the result seen in Figure 4. In both 3 and 4 a spot was placed on the left side of the subject to hit the temple. In Figure 5 we have the more or less typical profile lighting. Again a front light was used to open up the shadow area but back of the subject and to the picture's right another light was used to highlight the profile. And a slight spot was used behind the head. By cutting down on the front light, moving it away or reducing its wattage, we can change the key of the print to suit ourselves.

Result: pure white, but perhaps too much light and it will cause a little halation around the figure if you aren't careful. You know, a white sheet background can be made into anything from a pure white to almost jet black. Throwing some sort of improvised spot upon it from below, so that the light area of the spot comes just behind the sitter's head and shoulders you will get a sort of "atmospheric" background effect a slight halo which pleasantly outlines the body letting the background fall off to greater darkness and permitting the head to stand out with greater force. But be careful that your background light isn't too bright. Too obvious a spotlight effect is usually unpleasant. As a rule a 60 or 100 watt bulb is sufficient, depending, of course, on the volume of light on the subject.

For such and other things the meter is invaluable. In illustrative work it is frequently used when emphasis is to be placed on a certain subject letting the others go off into a sort of semi-darkness. Or in a group picture when one face (such as a girl surrounded by a group of adoring males each with a different brand of cigarettes or chewing gum or jello or gin), is to be in high key and the other in low, the meter will give, to an experienced operator, the exact values between the various subjects.

And so in this way science makes its contribution to the art of photography. But remember that science cannot itself arrange those lights any more than it can build for you the composition and the structure of the picture itself. That remains for the photographer, the artist, and rules and regulations can never replace the individual feelings and ideas of men—not even of the men who make them.

Cinema Section

Edited by
William A. Palmer

Movies For Business And Pleasure

IT IS a strange thing that of the many thousands of movie camera owners, so few use their camera for any purpose other than pleasure. To be sure, the primary and most important excuse for owning a movie camera is the fun you can get out of it. It was so in the early days of automobiles. Their primary use was pleasure driving, but now we all use our automobiles as the insurance policies say, "for business and pleasure." Why shouldn't we use our movie cameras "for business and pleasure."

All of us, no matter what our calling, can make movies help us in our every day tasks of making a living, for movies have been found to do very well in commercial fields. I don't mean to imply that you should turn into industrial film producers, for making a decent commercial "feature" film is a full time job for a specialist. It is in the field of commercial "shorts" where the amateur can make his hobby pay dividends.

Over quite a period of time we have run onto a number of movie makers who have made their hobby do double duty. Here are some practical uses of movies that may suggest a way in which your camera can help you:

Civil Engineer

A young bridge engineer in charge of a job at some distance from his home office, kept a progress record of construction with the aid of his movie camera. There was nothing pretentious about the film but he made a neat set of titles which kept the dates and locations straight. The lettering was done with the lettering guide which he uses in his drafting work and they were decorated by a border which worked in a crane on one side and a "T" square and triangle on the other. The border was made as a mask with an aperture cut out so that it could be laid over each title card. The film received a good deal of commendation from his superiors who saw to it that from then on the company would provide him with all the film he needed for record pictures.

Real Estate Broker

A real estate broker, specializing in country estates, has compiled a "catalogue" of kodachrome shots showing the grounds, gardens, and other facilities. He usually takes models down to the places, which he is going to handle, and shows them enjoying the tennis courts, swimming pool, horseback riding, or whatever will give a good first impression to a prospective purchaser. By showing these films, it is possible to weed out the property that would only be a waste of time to visit and allow the prospect to see the "possible" ones in the

shortest possible time. The films also give the purchaser a very good impression of the business-like methods of the agent.

Industrial Engineer

An engineer in the operating department of a large food packing company decided to use his movie camera to make slow motion studies of the machinery and conveyors which handle the cans and food stuffs. From these films he has been able to detect many difficulties and eliminate "jams." The lighting equipment used by this worker is rather interesting. Because he is only interested in close-ups, he does not have to have very extensive lighting, but he wants to get adequate lighting without too much bother and set-up difficulty. To this end he has an arrangement consisting of a single lighting standard on which are placed four clamp-on units with regular 150 watt "reflector spot" mazda lamps. These lamps are used mainly for illuminating show windows and they are the same in outward appearance as the R2 reflector photoflood lamp. However, the 150 watt "reflector spot" is not frosted on the end and will throw a more concentrated spot. Notice though that the lamps are not of the photoflood type but are regular long life mazdas. To increase their brilliancy for photography, they are run off a booster transformer which steps up the voltage to about 180 volts, thereby making the lamps act like photofloods. The booster transformer is one made for movie workers and is available through photographic dealers. By its use, any regular mazda lamp can be made to burn with the brilliancy of a photoflood of comparable size.

Physician

A physician who has developed a new technique for setting bone fractures was to deliver a paper on the subject at a medical convention. Being also a movie amateur he made films of the operation and even worked out animated diagrams showing how the manipulation caused the fracture to be "reduced." These animated sections were not of the elaborate Disney cartoon technique, but were frame by frame animations of cardboard cut-outs which showed the operation with perfect clarity.

Dentist

A dentist who had a similar purpose of wanting to illustrate a professional paper at a convention, turned his hobby to the problem of photographing the inside of the mouth. Before he was done he had evolved a unique camera mount for dental photography by which the camera could be moved around at any angle and still be aimed directly at the mouth. The mount consisted of a large semi-circular track placed around the dental chair and pivoted to swing up or down in such a way that the camera lens always pointed at the desired object in the mouth. From the pictures, as in the case of the physician, the message of the paper was made completely clear and the film maker was given a more esteemed position in the minds of his colleagues.

Lawyer

A lawyer movie enthusiast was called upon to defend his client against a damage suit brought by a plaintiff who claimed permanent disability as the result of an accident. The lawyer knew the disability was faked and with the foresight of a movie bug, got a fellow amateur to "shadow" the disabled one with movie camera and telephoto lens. He was able to get several very fine scenes showing the plaintiff walking up and down stairs and even playing golf in a manner that proved conclusively that the damage suit had no justification.

Clothing Stores

Two clothing stores in a college town, both with movie conscious managers have made good use of the camera to increase business. One store is a men's haberdashery, the other a girl's dress shop. The men's store covers all the athletic contests, particularly the football and track seasons, making newsreels which are shown in the store during the succeeding week. They are shown in a special lounge where the college men can see them, hold bull sessions and, of course while they're in the store maybe shirts, socks—. The dress shop makes use of movies in this way: One of the salesgirls is a movie amateur and periodically she gathers some new dress numbers and runs out to some sorority house, getting a few girls to model the dresses while she photographs them in kodachrome. All the sorority girls are then invited for a later date at the store to see the movies. Well, the models want to see themselves, the sisters want to see the models, and it seems to help business.

Teacher

An elementary school teacher and amateur movie maker has found two fine uses for her movie camera in her professional work. She has made a series of short films showing all kinds of animals, some from the zoo, others from the farm. Particularly, she has tried to get pictures of baby animals. These she shows to her kindergarten children as a supplement to the usual still pictures in books. She also makes movies of her charges doing the various projects and going on the various field trips that are a part of the modern educational system. She shows these films to the P.T.A. meetings so that the mothers can better understand the way in which their children are being taught and appreciate the job the teacher has. As a result of her movie work, she has received many compliments from parents as well as other teachers in the school system and has gotten the reputation of being particularly up on her toes, all of which will not be amiss when advancements are passed out.

Student

A student, taking a course in biology where a term paper was required decided to let his hobby help out. He fixed up a "lapse-time" outfit by gearing his camera to take pictures at a very slow rate of speed, about one picture for every five minutes. He then photographed a series of cut iris blossoms opening making a number of experiments in the mineral content of the water in which they were placed and the length of the stems. He wrote up a brief summary of his conclusions and submitted the film as his term paper. Result—"A" in the course with special commendation from the teacher for his originality and initiative.

Taxicab Operator

The owner of a fleet of taxicabs in a medium sized city has made his camera do him a good turn. Periodically he drives around town or parks near an intersection and takes movies of his own cabs in operation. If he observes any violations of safety rules or an indifference to courtesies, he tries to get a picture which can be shown at the next "pep" meeting of his drivers. The very fact that the drivers know the boss and his camera may be recording their actions, is a very good deterrent to improper actions.

Physiologist

A physiologist in one of the large universities has turned his camera to the making of records of habit forming experiments with cats. Here the movie

camera makes a better before and after record than any other means, because the experiments involve the change in action of the cats after the completion of certain physiological experiments.

Army Draftee

A movie maker who got drafted has found his camera to be still a good source of pleasure as well as usefulness. His officers have been very cooperative in letting him break out of the ranks from time to time so he can shoot his buddies on film. He has compiled quite a complete picture of camp life and activity and has furnished diversion for the camp as well as giving a number of shows back in his home town during furlough. On one of these occasions he showed the film for an admission charge which was turned over to the British War Relief.

Take Your Camera to Work

So you see, there is no reason to leave your camera on the closet shelf waiting for the next week end or the next vacation. Whatever you do as a major occupation, look and see if there isn't something that the movie camera can do to help out. It may be helping you make a good impression on your boss, showing your clients how the gadget you are selling works, or polishing the apple a little brighter for your teacher. It certainly can do you some good if you give it a chance.

A Practical Home Agitator

C. E. Pearce

IN USING a miniature camera for the past few years, the writer discovered, both from his own experience and that of others, that agitation during development was imperative. It avoids the possibility of little particles of dust and dirt getting on the film, and ensures uniform development. At first, the film tank was shaken every three or four minutes by hand. This, however, was tedious, and did not ensure uniformity of results, aside from the fact that it wastes some time in at least intermittent attention. Consequently my thoughts were directed toward some means of obtaining a practical home method of mechanical agitation at a low cost.

First thoughts centered on the wife's "Mixmaster," but no ready method suggested itself. Then, hopeful eyes were cast at the reciprocating electric fan, which through the cam action, presented possibilities of procuring a forward and backward rotating movement. At the outset, it was deemed that a continuous rotation in one direction would not provide the desired action. However, these were soon cast aside, for right alongside of the kitchen sink there was a ready-made item which would "fill the bill" to perfection. It was the family washing machine.

The accompanying pictures illustrate the use of the washing machine as



Figure 1

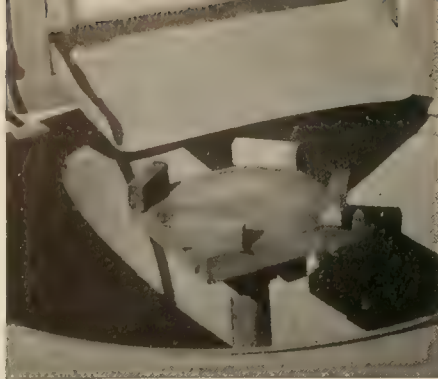


Figure 2



Figure 3

an agitator. The agitator blades on the washing machines are lifted off. At the top of the center post for about two inches there is a shank about one inch square, which rotates back and forth, perhaps through an angle of 90 degrees, which shank imparts the reciprocating rotary motion to the washer blades or paddles. A piece of one-inch board is cut out about seven or eight inches square, or in any event to suit the base of the double-boiler used. On the under side of the board, draw cross diagonals to obtain the center and then nail one-inch strips so as to form a square hole of such size as make a push fit with the square shank. Obtain a cheap aluminum boiler at the ten-cent store, and nail strips on the top of the board in such a fashion as to form a one-inch deep push fit for the bottom of the double boiler. The double boiler, of course, is selected to fit the developing tank.

The whole thing, double-boiler handles and all, rotates back and forth at just about the right speed. The writer has used this method for about three months now on about 25 rolls of Contax film, and has found no harmful effects. On the contrary, the finest print quality ever obtained by the writer has been obtained from these negatives.

At first the agitator was tried without the double boiler but the centrifugal force throws out an occasional drop of developer, which does not enhance one's popularity around the house. Also the double boiler has two other prominent advantages. First, and most important of all, it provides a method of fairly accurate temperature control, and secondly, it retrieves any developer which overflows or is thrown out by centrifugal force.

In using a developing tank for miniature films, one of the all-metal spiral reel tanks should be used. A metal tank has the advantage over tanks of other materials in the high rate of conductivity which ensures that the tank and contents will be of the same temperature as the water in the double boiler. The temperature of the water in the double boiler may be checked and corrected from time to time if necessary, but on account of the high specific heat of water, which means that it takes relatively a great number of heat units to change the temperature a given amount, no appreciable change over a half a degree or so results in 30 minutes of agitation with fine grain developers.

Following development, the film is agitated for about three minutes in a potassium chrome alum hardening solution (about a tablespoonful to a pint of water—proportions not important) and then again agitated for about ten minutes in the hypo.

The total cost of this outfit was 40 cents for the double boiler.



"Pete Buckeley, Packer"

Cedric Wright, Berkeley, Calif.

First Award—Advanced Class

♦ Here is an excellent portrait taken under rather difficult conditions. The intense sunlight of the High Sierras is hardly an ideal light for portraiture but this picture proves how successfully it can be brought under control by one who knows how. The hat serves to protect the eyes from direct light and adds an interesting note to the picture, while the light granite is no doubt functioning quite helpfully as a reflector. We could wish that the shadow of the hat could have carried down to the lower left corner or that this area could have been filled in with the dark tone of the jacket. As things are this bright corner entirely surrounded by dark tone calls attention to itself and to the curves of the shadow at this point. With this lower corner filled in the contour of the shadow is much simplified and it then functions successfully as a line leading toward the head and as a useful part of the black and white pattern.

Data: Goerz Dagor lens; Agfa Isopan film, in D-7; 8 x 10" print on Kodak Kodabromide 2.



"Plowed Field"
Harry H. Haworth,
Pasadena, Calif.

the eye. If it did so the movement would carry through the picture with more verve, such rendition would be in keeping with the modern feeling of the picture, and a more clear cut point of rest would be established. At present the U-turn in the roadway near the right of the print is almost as strong a point as the building.

Data: $2\frac{1}{4} \times 3\frac{1}{4}$ " Voigtlander; Skopar lens; Kodak Super XX film with K-2 filter; 10×16 " print on Defender Velour Black I.

Second Award

Advanced Class

♦ One might almost say that here is the Daddy of all leading lines for it surely meanders through the picture in complete and interesting fashion. This strong movement is supplemented by effective contrasts of texture and tone between the light and dark earth which create a firm light and dark pattern. The large building is nicely placed at the culmination of the movement, and we think it advisable to print so that this building would stand out as the brightest tone in the picture. As things are it does not contrast sufficiently with its background to exert a strong pull on



"Refugee"
Rowena Fruth,
Connersville, Ind.

Third Award

Advanced Class

♦ Miss Fruth has achieved a portrait which expresses the ideas contained in her title in a most sensitive and interesting fashion. Viewed simply as a composition the picture has an up-thrusting movement which is thrilling and effective. This quality combined with the thrown-back head, the firmly set jaw and the expression of quiet determination tinged with sadness, express in subtle yet emphatic fashion all of our feelings about the refugee; suffering, courage and a determination to carry on. The reader should take careful note of the subtle ways in which this picture achieves its effects. Obviousness and theatricality are carefully avoided and the whole story is told through a sensitively adjusted pose and expression.

Data: 14×17 " print.

Fourth Award

Advanced Class

♦ This picture is a virtually perfect example of first rate portrait technique. In addition the pose is good and the head is nicely placed in the picture space and well supported from below. At the same time it is the sort of picture which one is tempted to describe as "commercial" in quality, as a picture which would be fine for advertising purposes. Such phrases imply some disappointment in the emotional properties of the picture and at the same time grant an excellent technical rendition of the subject. One feels that the photographer has been concerned only with surface aspects. That there has been no attempt or intention to dig deeper and achieve a pose and expression which would be truly revealing of character. And, of course, this is exactly the course which the advertising photographer is compelled to take if he wishes to satisfy his clients. The factors which determine such a result are numerous and illusive. The photographer's approach, his intention is, of course, the most important and we will point to one other in an attempt to make the distinction clear. Observe the lighting. The main source of light appears to come from the left of the camera if one is to judge by the principal shadows which are to the right of the nose and on the white collar to the right of the chin. At the same time the strongest highlights, those on the right side of nose and forehead as we look at the picture, are produced by a light coming in from the right. Such a contradiction in lighting produces a slick, flashy, brilliant result but not one which will impress the observer with the sincerity of the picture.

Data: 16 x 20" print.



"J. C. Clarke"

W. Ellis Teas,
Pasadena, Calif.

Fifth Award

Advanced Class

♦ This is an unusually difficult photographic subject because the brightness range within the forest itself is so extremely short, yet the total range when the sky is included is quite the opposite. Apparently the fog was dense enough to lower the sky tone to a point where it was possible to expose and develop for the very short scale of the forest without blocking up the sky. Considering the conditions Mr. Willcox has achieved a remarkable separation of tone values. This is quite close to what the eye could see and it gives us a vivid impression of the gloomy dampness of a great forest on a foggy day. The picture is also interesting as a formal composition in short scale. The figure is placed just right and it helps the picture considerably by establishing a scale which proves that the trees are big.

Data: $2\frac{1}{4} \times 3\frac{1}{4}$ " Speed Graphic; Kodak Plus-X in Kodak DK-76; 11 x 14" print on Kodabromide V, in D-72.



"Fog Forest"

Fred P. Willcox,
San Francisco, Calif.



"Arcadian Solitude"

William K. Billings, Detroit, Mich.

First Award—Amateur Class

✦ The "deadening weight of winter" is seen with unusual clarity in this picture. The sagging lines of the building and the stark, tortured tree branches being particularly eloquent in this respect. Obviously the camera position was selected with an eye to getting the tree to function as an effective frame and to bring the tree shadows into the desired position in the foreground where they serve to break up what would otherwise be a monotonous area. Such a position keeps the main weight of the barn to the right in the picture space. Since the weight of the tree is also on the right this situation would produce an unbalanced picture were it not for the hole in the snow which has a powerful effect in restoring the balance because of its position at the extreme left. If the snow had been smooth and unbroken it would have been necessary to move the camera to the left so that the barn would move to the left in the picture space and in that way be brought into balance with the tree. With things as they are, however, the present solution is quite satisfactory.

Data: $3\frac{1}{4} \times 4\frac{1}{4}$ " Speed Graphic; Kodak Anastigmat lens; $13\frac{1}{4} \times 16\frac{1}{4}$ " print on Kodak Opal W, Gold toned.

Second Award

Amateur Class

✦ Correct lighting is certainly by far the most effective means of getting rid of distracting detail. In a bright light the boats and docks which line the waterway would present a horrible confusion, but under this soft, dull light all of that is quietly obliterated and a successful picture becomes possible. The stillness of the water is also an advantage since the attention is concentrated in the foreground by the fact that the water is only disturbed in this area, and this condition also makes the action of the boats more evident and forceful. The brightest note in the picture is the spray from the near boat and this establishes it firmly as the dominant object in the picture. Observe that the two speed boats are in very nice relation to each other and that they are both placed in strong positions in the picture space.

Data: Argus A2F; 1/200th sec. at F:6.3, on Kodak Panatomic-X; 9 x 11" print on Defender Velour Black DL; Agfa direct sepia toner.



"Up-Channel"
Viva McDonald,
San Francisco, Calif.

Third Award

Amateur Class

✦ The virtues of this picture are too obvious to require comment so we would like to call attention to three minor details of the pose which are susceptible of slight improvement. The problem of achieving good poses is largely one of training the eye to see slight departures from perfection in advance of exposure, for that is the time to correct them. As things are it would have been better to entirely conceal the model's right hand and arm behind the body, for the bit that is visible now suggests a peculiar form of appendage common to our remote ancestors. It attracts the eye unnecessarily. A bit of the right knee cap is seen in front of the near leg and this interferes with the smooth sweeping contour that we would like to see. With the low camera angle that is necessary for this shot it is not possible to avoid having the spring board cut the ankles rather awkwardly. We believe that the psychological effect of this can be minimized by showing the toes over the edge of the board. These items are admittedly minor details and they do not destroy the general effectiveness of the picture though they do weaken it slightly. We mention them primarily because they constitute excellent examples of the sort of thing we must train our eyes to see and our cameras to avoid.



"Get Set"
C. B. Phelps, Jr.,
Grosse Pointe, Mich.

Data: Zeiss Super Ikonta D; 12 cm. Zeiss Tessar; 1/100 sec. at F:11 with G-3 yellow filter; sunlight 4 P.M. in July; Agfa Superpan in Champlin 15; 15½ x 19" print on Kodak Vitava Projection B-3, in Kodak D-72, 1:1.

Fourth Award

Amateur Class



"Home from the Sea"

*Frances S. Robson,
Vina, Calif.*

♦ This picture is lifted out of the ordinary by nice framing of the boat within the picture space and by a pleasing and well rendered aerial perspective. The inclusion of the isolated bit of dock on the right appears thoroughly justified. Without it the whole upper right quarter of the picture is dead space and under those conditions trimming from the right would be essential. This would remove the mooring bits in the lower right and the picture would then quite obviously lose much of its character and become very commonplace. It would be better, of course, if the space between the ship and the dock on

the right could be considerably less for this would bring about a more compact arrangement. Ideally we would like to see the space between ship and far dock broken up by something like a tug taking a line from the ship, for example.

Data: 6 x 6 cm. Rolleiflex; 1/100 sec. at F:5.6 with medium yellow filter; 7 A.M. on foggy day; Kodak Plus-X in DK-50; the very thin negative was intensified; 10 $\frac{1}{4}$ x 13 $\frac{1}{4}$ " print on Kodak Kodabromide in D-72.

Fifth Award

Amateur Class



*Wm. Holgers,
Berkeley, Calif.*

♦ There can be no doubt that the use of flash offers certain very distinct advantages in portraiture. The sitter is likely to be more at ease in the absence of glaring lights, squinting is avoided and a better rendition of the eyes is particularly noticeable. On the other hand it can not be denied that a large percentage of flash portraits are noticeably lacking in good photographic quality. The great majority of such failures can be traced to one or both of two causes. Too flat a lighting brought about by the use of one bulb directly on the camera and/or overexposure resulting in chalky washed-out flesh values. The present picture offers ample proof that fine quality flash pictures can be obtained when the technique is properly applied.

Data: 9 x 12 cm. Linhof; 8 $\frac{1}{2}$ " Meyer Plasmal; 1/50th sec. at F:32, with 2 #5 G. E. Fotoflash bulbs; Agfa Isopan film; 8 x 10" print on Brovira Glossy in Amidol.

Monthly Competitions

The Jury

P. Douglas Anderson, F.R.P.S., G. H. S. Harding, George Allen Young.

Scoring for Club Trophy Cups

The following won points for their respective clubs in the Advanced Class: Fred P. Willcox, for the Aremac Camera Club; Harry H. Haworth and W. Ellis Teas, for the Pasadena "Y" Camera Club; Rowena Fruth, for the Yellow Springs Camera Club. The following won points for their respective clubs in the Amateur Class: Viva McDonald, for the California Camera Club; William K. Billings and C. B. Phelps, Jr., for the Detroit Camera Club; Frances S. Hobson, for the Kamera Kranks of Durham. Cedric Wright and William Holgers have not indicated any club affiliation.

Contributing Clubs

Alameda Photographic Society (Alameda, Calif.)	Gemmy Photo Society (Hong Kong, China)
Aremac Camera Club (San Francisco, Calif.)	Highbridge Camera Club (New York, N. Y.)
California Camera Club (San Francisco, Calif.)	Hong Kong Photographic Society (Hong Kong, China)
Camera Club of Maryland (Baltimore, Maryland)	Kamera Kranks (Durham, Calif.)
Cleveland Photographic Society (Cleveland, Ohio)	Lincoln Park Camera Club (Chicago, Ill.)
Dallas Pictorialists (Dallas, Texas)	Pasadena "Y" Camera Club (Pasadena, Calif.)
Detroit Camera Club (Detroit, Mich.)	Photographic Society of San Francisco (California)
Port Dearborn Camera Club (Chicago, Ill.)	Tulare Camera Club (Tulare, Calif.)

Standing of Clubs

<i>Large Clubs—Advanced Class</i>		<i>Large Clubs—Amateur Class</i>	
Port Dearborn Camera Club.....	29	Detroit Camera Club.....	34
Pasadena "Y" Camera Club.....	25	Cleveland Photographic Society.....	24
California Camera Club.....	17	California Camera Club.....	17
Manhattan Camera Club.....	5	Miniature Camera Club of New York.....	17
		Photographic Society of San Francisco.....	11
		Amherst Camera Club.....	5
<i>Small Clubs—Advanced Class</i>		<i>Small Clubs—Amateur Class</i>	
Photographic Society of Hong Kong.....	20	Kamera Kranks.....	8
Yellow Springs Camera Club.....	12	Camera Club of Maryland.....	6
P. I. C. Pool.....	4	Dallas Pictorialists.....	4
Rothschild Camera Clinic.....	4	Tulare Camera Club.....	4
El Alto Camera Club.....	3	Greenville Photographic Society.....	3
Alameda Photographic Society.....	2	Women's Photographic Society of Cleveland.....	2
Aremac Camera Club.....	2		
Kamera Kranks.....	1		

SUMMARY OF COMPETITION RULES

1. Open to all, amateur or professional, club member or non-club member.
2. Closing date 1st of each month.
3. Indicate class of entry (Advanced or Amateur) and club membership (if any) on back of each print. Technical data should accompany each print.
4. No entry fees or blanks required.
5. Stamps must be enclosed for return of prints.
6. Full explanation will be sent free on request or may be seen on page 47 of January 1941 issue.

Club Notes

(Continued from page 537)

vanced workers will meet each Monday evening from 8:00 to 10:00 P.M., while the beginners' group will meet at the same hours on Friday nights.

The photographic courses conducted by J. Ghislain Lootens, F.R.P.S., at the Central Branch Y.M.C.A., 55 Hanson Place, Brooklyn, N. Y., will begin Sept. 29th. An attractive brochure completely describing the courses can be obtained from the above address.

The Brooklyn Museum, Eastern Parkway, Brooklyn, N. Y., have prepared a circular describing the courses in photography which are conducted by a staff of famous photographers. Copies of the circular may be obtained from the above address.

Club Activities

The Central Valley Camera Club, of Tracy, Calif., will display prints each month in the window of Magor's, of that city. An attractive background for the photographs has been prepared and the prize winners of the club's monthly competition will be displayed.

The Women's Photographic Society of Cleveland, 204 Erie Bldg., Cleveland, Ohio, held open house at their new quarters on Sept. 17th, from 3 to 9 p.m.

The Metro - Goldwyn - Mayer Amateur Camera Club of Culver City, Calif., have erected an attractive display case on the MGM Lot and are exhibiting member's prints. The display is changed every five days.

The Portland Photographic Society, Inc., 3705 N. E. Sandy Blvd., Portland, Ore., are planning a series of round table lessons for beginners in the club. A basic course in photography will be presented with the emphasis on practical instruction. Experienced club members will conduct the round table lessons.

The Central California Council of Camera Clubs have prepared a catalog of speakers, critics and demonstrators for the use of their member clubs. The council now has twenty members with the recent enrollment of the Diamond Kameramateurs, of Oakland, Calif., and the Central Valley Camera Club, of Tracy, Calif.

The Rockefeller Center Camera Club, of New York City, hold a weekly luncheon in the Hotel Victoria Grill at 12:30 each Wednesday. Visitors will be cordially welcomed.

The Delaware Camera Club, 902 Orange St., Wilmington, Del., will open their 1941-42 season with a prize contest for the best picture taken by a member during the summer. The group plans a series of informal meetings to be interspersed with regular meetings. The informal gatherings, which are presided over by selected club members, were tried out in the spring and proved so popular that they have been made a regular part of the club activities.

The Camera Guild of Cleveland, Ohio, have assigned space to every club member on the

walls of their studio. It is the duty of each member to see to it that a suitable print displayed and that it is changed at frequent intervals. This should prove a stimulus to print making as each member will want his print to stand up well in the display.

"Camera Club News," bulletin of the Atlanta Camera Club of Atlanta, Ga., blossomed forth with a four color cover for the August issue. The picture, entitled "Name It As You Can Have It" or "Ház Students Go Berserk," was inspired by a lecture on "Abstracts" given by Nicolaus Ház, famous photographic instructor. The Atlanta club publishes one of the most attractive as well as one of the most lively and readable club papers we have seen.

Announcements

Photographers are wanted for Government positions. A general register of experienced photographers for both temporary and permanent appointment in various defense and regular Government agencies is to be set up by the Civil Service Commission. An examination has just been announced to secure photographers who are available for Government employment and who will accept salaries ranging from \$1260 for Under Photographer to \$2600 a year for Head Photographer. There is a special need for photographers experienced in wet-plate, process, and general commercial photography, and in photographic mapping. Applications will be accepted at the Commission's Washington Office until June 30, 1942. Further information and application forms may be secured from any first or second class post office or from any District Office of the United States Civil Service Commission.

Plans for the Seventh Annual Convention of the Photographic Society of America have been completed with the addition of a number of unusual exhibits to be displayed at the Stevens Hotel, Chicago, Ill., October 24-26, 1941. These exhibits will include an old time salon consisting of prints over 25 years old, a display of various photographic processes, the Chicago Area Camera Club Association Salon, the PSA recommended lighting and salon standards and a number of color slides.

The Coronado Camera Club of Coronado, Calif., started its third year by holding a special dinner meeting Sept. 16th. President for the new year is Miss Doris Bryan, Secretary-Treasurer, to whom correspondence should be addressed, is Mrs. Mabel Boileau, 423 Pomona Ave., Coronado, California.

Among employee camera clubs, the Telephone Camera Club of Manhattan may well be the oldest of them all. This group was organized twenty-seven years ago and today is one of the most vigorous clubs in the country. Employee groups have blossomed forth all over the country, in all kinds of businesses, and they make up an important part of camera clubs as a whole.

Two leading camera men of Northern California are engaged this summer in an enterprise unsurpassed in novelty and danger. They are sailing a small boat from Norfolk, Va., to San Francisco, via the Panama Canal. The two men, H. Courtney

Benedict and Arvil Parker, are accompanied by Benedict's son and daughter, Howard, 16, and Marion, 13. Benedict and Parker were brought together through their association in the Kamera Kranks, a club of Butte County amateurs. After Benedict, acting on impulse while on the east coast a year ago, had bought a 48-foot sailing schooner, it dawned on him that it would be necessary to sail it to San Francisco if it ever was to be of use. It was then he interested Parker and they made their plans. They are now reported to be in the Pacific Ocean and starting the last leg of their exciting voyage.

The Photographic Society of America has announced the establishment of its national headquarters at the Franklin Institute of the State of Pennsylvania, 20th and Benjamin Franklin Parkway, Philadelphia, effective Sept. 29, 1941. After Sept. 26th, all mail for the Society or the General Association of Camera Clubs is to be sent to the new address.

The Photographic Society of America's monthly print competition, open only to camera clubs, starts its third season in October. A copy of the rules and entry form may be obtained from the new address of the Society given elsewhere in these pages.

The American Museum of Natural History, 15 West 77th St., New York City, is now presenting a series of sound pictures. The films are shown each Wednesday at 4:00 P.M. The current series will run through January 28, 1942.

1st Annual West of the Rockies Photographic Salon. The San Francisco Museum of Art will present its 1st Annual West of the Rockies Photographic Salon from October 29 through November 16. This exhibition is open to photographers who reside in the states of Washington, Oregon, Idaho, Utah, Nevada, Arizona and California. Three prints in any photographic medium may be submitted. Entry blanks will be forwarded on request. Deliveries must be made October 7 and 8 only. The Jury of Selection will be composed of Edgar Bizzantz, Sonya Noskowiak, Cedric Wright, Imogen Cunningham, and Quinter Olen Gilbert.

Contests

The Ever Ready Label Corporation, 141 East 25th St., New York City, are now conducting a photographic contest offering \$500.00 in prizes. Entry blanks and rules may be obtained from New York camera stores or direct from the above address.

Notes and Comments

New Products

A new line of Duraline Filters, designed expressly for the Argus C-1, C-2 and C-3 cameras, has been introduced by Harrison & Harrison, 8351 Santa Monica Blvd., Hollywood, Calif. Being of similar thread, the Leica 3.5 may also be fitted with this new series. Threaded mounts are of precision machined brass, heavily chrome plated. Filters may be obtained in all standard Harrison types and are listed at \$2.00 each.

A new Fotos Footswitch has been announced by the Fotoshop, Inc., 18 East 42nd St., New York City. This switch, measuring 6"x3"x2" and shaped to fit the foot comfortably, is an ideal aid for printing or enlarging. Made of approved electrical material, it can be used on AC or DC current. Price is only \$1.95.

For the camera enthusiast who demands a thoroughly fine instrument, handy in size and smooth in operation, the Eastman Kodak Company announces a new Bantam Special, now equipped with the excellent Kodak Ektar f:2.0 lens and Eastman's unequalled Supermatic shutter.

Aberrations—coma, astigmatism, distortion, curvature of field, and spherical aberration—are virtually non-existent in the 45-mm. Ektar lens, producing black-and-white negatives of such sharpness that generous enlargements retain rich detail. In addition, corrections for lateral and longitudinal chromatic aberrations make possible Kodachrome transparencies of hair-line sharpness.

Surface coatings only 1/50,000 of an inch

in thickness on the inner glass-air surfaces of the lens elements still further improves the clarity and brilliance of the images formed. The coating results in superior contrast in black-and-white negatives and greater color purity in Kodachrome pictures—accompanied by materially reducing the intensity of the reflections from the glass-air surfaces within the lens.

In addition to the fine Ektar lens, the Kodak Bantam Special carries the dependable and accurate Supermatic shutter, the standard of shutter precision. As a convenience feature, its speed selecting ring is marked in red for "Time," "Bulb," 1 second, ½, 1/5, and 1/10—speeds requiring the camera to be mounted on a tripod or other firm support. Engraved in black are 1/25, 1/50, 1/100, 1/200, 1/400 second—speeds at which the camera can be hand-held.

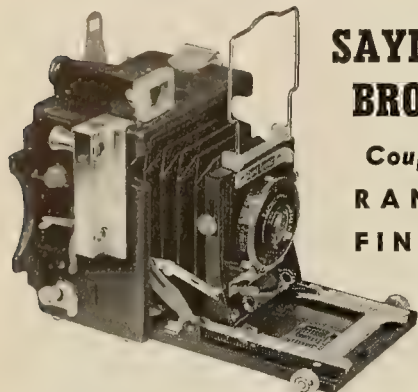
Accurate focus with the Bantam Special is easily obtained with the lens-coupled, split-field range finder, the eyepiece of which can be adjusted to suit the individual's eyesight. Just at the left of the index mark on the engraved distance scale is a red index mark so that focusing compensation can be made manually when the camera is loaded with Kodak Infrared Film.

Supplied as standard equipment—not as an accessory—is a tan leather field case.

Ideal for the beginner and the hobbyist desiring an inexpensive camera for outdoor picture taking as well as for indoor pictures by synchronized flash, the Eastman Kodak Company announces the Brownie Reflex, Synchro Model.

For daylight picture taking under ordinary conditions, the new Synchro Model

A BETTER RANGE FINDER At Far Lower Cost!



SAYMON- BROWN Coupled RANGE FINDER

And one of the unusual advantages of this coupled range finder is the fact that it can be attached to most cameras . . . even some of post-card size. For it measures only 3" in height . . . making it the most compact range finder available. In addition, focusing with the Saymon-Brown is quicker and more accurate, because one image is a distinct amber color, thus making it easy to superimpose with the other clear image. Even in dim light, focusing is far more certain, for the brilliant optical system of this precision range finder clearly defines the images. Point-by-point, you'll recognize the superiority of the Saymon-Brown in any comparison test you care to make. See your dealer for additional facts, or write today for complete information.

Priced at only.....\$13.50
(Plus \$1.50 for installation)



Are you working in the dark?

Are your pictures flat and dull . . . lacking in the quality that makes a print sing?

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- It will show you the photographic process in a new light . . . you will learn to understand it as a completely integrated whole that can be bent to your every wish.
- It will show you how to bring your technique to such a point of perfection that its practice will be automatic and you will be free to devote your efforts to the creative side of photography.
- You will find no graphs or mysterious mathematics for the author's purpose is to clarify the photographic process.
- Each chapter is followed by a series of practical experiments that will help you to grasp and retain the lessons of the text.

From your dealer or

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425 Bush Street San Francisco, Calif.

operates like the twin lens Brownie Reflex. It supersedes. The subject image is shown right side up, full picture size in the brilliant finder. The shutter is tripped by pressing the plunger release located near the bottom of the case and toward the front. For time exposures, the small lever on the front plate is set at "B."

When the user wishes to make synchronized flash pictures, the Brownie Flashholder—battery case, polished reflector, lamp socket—is attached by mounting the Flashholder bracket to the side of the camera case. The Flashholder connecting cord is then attached to the terminals in the front plate under the lens. Two pen-size pocket flashlight batteries—not supplied but readily available—are placed in the battery case.

The Brownie Flashholder is designed for synchronized flash picture making with the new Mazda SM (Speed Midget) Photoflash Lamp. The lamp fits easily into the bayonet socket and, after flashing, is ejected by turning the knurled ejector knob on the back of the reflector. A synchronizing switch within the shutter is carefully preadjusted at the factory so the peak intensity of the flash lamp occurs when the shutter is fully opened. No further adjustments are necessary.

The Brownie Reflex, Synchro Model, may be purchased without the Brownie Flashholder, if desired.

For amateur photographers desiring to make their own Christmas Greeting Cards this season, two new Greeting Card Production Outfits, manufactured by the Eastern Kodak Company, offer a variety of types and styles, and stand way out ahead in attractiveness of designs.

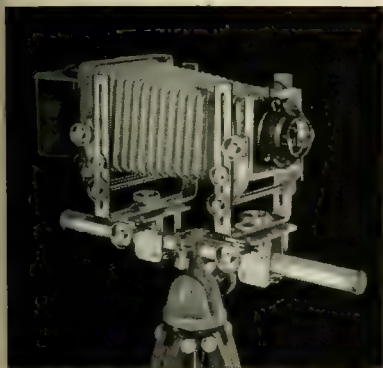
The No. 6 Outfit contains eight negative masks, two vertical and two horizontal, $2\frac{1}{2} \times 4\frac{1}{4}$ negatives; two vertical and two horizontal for $2\frac{1}{4} \times 3\frac{1}{4}$ negatives. Each mask includes a holiday sentiment, an opening for the negative and a guide for placing the paper. An Embossing Guide for $4\frac{1}{2} \times 5\frac{1}{2}$ -inch cards is also supplied with the outfit along with full instructions for making photo greetings. Metal Foil Gunned Sentiments can be attached over a design on the cards are available for seven of the cards.

The No. 7 Outfit consists of two masks, one horizontal and one vertical for $2\frac{1}{4} \times 3\frac{1}{4}$ negatives, six negatives of greeting sentiments, an Embossing Guide for $4\frac{1}{4} \times 5\frac{1}{2}$ -inch cards, and complete instructions.

An excellent solution for those who limited lists of people to whom they wish to send snapshots as holiday greetings is found in the Kodak Greeting Card Folders. These folders have die-cut openings, accommodating vertical or horizontal prints $2\frac{1}{4} \times 3\frac{1}{4}$, $2\frac{1}{2} \times 4\frac{1}{4}$, and standard enlargements from Bantam, 35-mm., half-620, Vest Pocket, and half-Vest Pocket negatives, and complete with envelopes, retail for only a few cents apiece.

If you were to take all the desirable features of a Press Camera—a Commercial View Camera and a Portrait Camera—add to them a few additional refinements you would get something like this new Grover Camera, now being produced by Burke & James, Inc., of Chicago. Available in the 4x5, 5x7, and 8x10 inch sizes. Its most outstanding feature is its mono-rail body.

It consists of a hexagon shaped rail, upon which are mounted the lens standard, the tripod mounting plate and the camera back. Micrometric friction focusing drive is had on both front and rear. The hexagon shape of the rail bed assures perfect alignment of front and back—and eight bearing surfaces or contacts provide perfect slip-proof traction for the friction focusing drive. The tension maintained on these bearing points is of the automatic take-up type and the tension is adjustable to suit the operator.



Grover Camera

Operating adjustments on both lens front and camera back include rise and fall, side swing and tilt . . . and these adjustments are practically unlimited in range—greatly exceeding the covering power of a normal lens. The removable lensboard permits instant interchange of lenses. Extreme wide angle or telephoto lenses may be used.

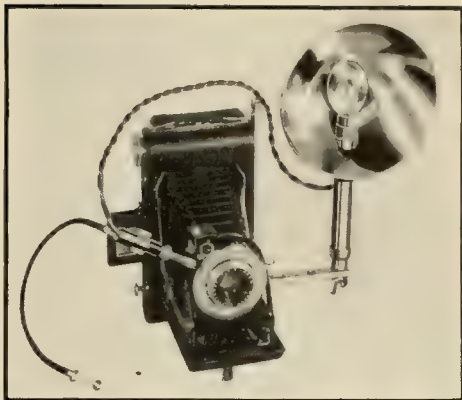
The camera back on the 4x5 model is of revolving type, permanently attached to the body, and light tight in all positions. It may be rotated from horizontal to vertical position instantly. The 5x7 and 8x10 have a reversible back. The full size ground glass focusing panel is fitted with a four sided, oblong light hood.

These cameras which are of all metal construction are fitted with a durable double tension bellows finished in silver grey to match the chrome finish of the metal parts. The appearance matches operating efficiency in these new Grover Cameras.

The 4x5 inch Camera sells for only \$59.50, 5x7 inch, \$69.50 and the 8x10 inch \$89.50. Illustrated descriptive literature may be had from Burke & James, Inc., 223 W. Madison Street, Chicago, Illinois.

The new Victor "63" Midgetflash Synchronizer, introduced by the James H. Smith & Sons Corp., 1014 Colfax St., Griffith, Ind., for perfect synchronizing of front shutters with the new "SM" and other midget flash lamps. Victor "63" provides for an extension lamp and it is very easy to attach

(Continued on page 633)



The New VICTOR "63" Midgetflash SYNCHRONIZER

PERFECT synchronizing of front shutters with the new "SM" and other Midget flash lamps is provided by this new VICTOR Unit. Easy to attach and adjust. Provides for extension lamp. Unit includes lightweight mechanism, cord with fittings, 5-inch polished aluminum reflector on "penlite" battery case and right-angle mounting strap for only \$3.65. Batteries and cable release are extra. Sold only through dealers. Write for literature.

JAMES H. SMITH & SONS CORP.
1014 Colfax Street Griffith, Indiana

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(Continued from page 631)

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Announcements

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If you are interested in color movies investigate the new Cine-Perfex Double Eight Color Camera. It is supplied with an F:2.5 lens for \$57.50 and with an F:1.9 lens for \$70. Complete descriptive material is available upon request. Write the Candid Camera Corp. of America, 844 W. Adams St., Chicago, Ill.

The Master Photo Finishers of America will hold their 18th National Convention, October 21 to 24, inclusive, at the William Hotel in Pittsburgh, Pa.

Robert E. Mosher, Chairman of the Board of The Haloid Company, has announced the election of W. H. Salmon as a Vice-President of that company at a recent meeting of the directors. Mr. Salmon since January 3rd, 1934, has been manager of the company's New York City Metropolitan District Office, and has been a director of the company since March, 1939. The Haloid Company sensitizes photographic paper and in its Rectigraph Division manufactures photocopy machines, record paper, having its head office and modern plants in Rochester, N. Y., and offices in principal cities of the United States.

Free motion pictures in color, that will not only interest those who hope to travel, but also those who have traveled the territory depicted, will be shown at the Community Playhouse, San Francisco, Friday evenings, Sept. 26th, Oct. 3rd and Oct. 10th. Miss Cross, who is responsible for the photography, and Florence Dean, the narrator, have carefully chosen the scenes to be portrayed, and have not just taken pictures while passing through. They have allowed plenty of time to become familiar with the field covered, searching out the scenes and events of unusual interest, and bringing as much knowledge as possible of the people and their customs. The results are well repaid the time and effort spent. *Times and Gardens of the Deep South* shows the Springtime beauty of this region from Bayou Teche and the storied Cajun country to the Pilgrimage city of St. Louis; New Orleans with its famed French quarter; quaint St. Augustine; historic Charleston and Virginia of "first families" homes. Woven through the film are scenes of famous southern gardens—Belmont, Magnolia, Middleton and Cypress. Florida is pictured from the Maritime Provinces to British Columbia, starting with the old French at Quebec and ending at the exciting pageantry of Indian

(Continued on page 635)

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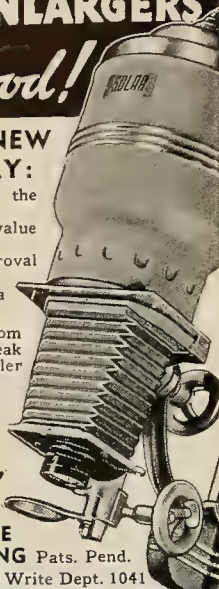
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(Continued from page 633)

No land is quite as rewarding to the color photographer as Mexico. There is nature at its colorful best; the riot of color in the countless Fiestas and the bull fights; the buoyant flowers of Xochimilco. The film shows the larger cities of Mexico, Puebla, Arriola; the smaller towns and villages—Mexico, Cuernavaca, Patzcuaro, Uruapan; all native dances and handicrafts and glimpses of scenes from the inauguration of La Camacho. This picture was taken in the winter of 1940-41.

The United States Army Air Corps has placed a \$24,660.90 order for Critic Model 40 Exposure Meters with the DeJur-Amsco Corporation, Shelton, Connecticut. According to Mr. Jack Kuscher, Sales Manager of the DeJur-Amsco Corporation, the order will be delivered to the various departments of the Army's Air Service. The Critic Exposure Meters are to play an important part in aerial photography and studio work.

Jack Cannon, genial dispenser of cameras at Baxter's Camera Shop, in San Francisco, is now on his annual pilgrimage to Mexico. This year he will travel the airways, via Pan-American. Mr. Cannon is well-known in photographic circles for his fine prints of Mexican life and customs that have been exhibited in many photographic salons. On his year's trip, in addition to his studies in black-and-white, Mr. Cannon will photograph colorful Mexico in Kodachrome. Later in the year, Baxter's Camera Shop will have delicacies of these Kodachromes for sale. The Mexican series will augment the fine stock of Kodachromes of Western Scenery, National Parks and other interesting subjects which Baxter's now has available. All of Jack Cannon's friends and customers will wish him good luck on his flying photographic jaunt "South of the Border" and will wait anxiously for those prize winning prints that will show up this fall and winter. Those interested in purchasing Kodachromes of Mexico are invited to write to Baxter's Camera Shop, 70 Post St., San Francisco, Calif.

Booklets and Catalogs

The Art Center School, 2544 West Seventh St. Los Angeles, Calif., has published a complete catalog describing the Department of Photography. The catalog describes the school and its elaborate facilities, gives a brief photographic biography of its experienced staff and explains the nature of the Art Center courses in photography. Prospective students may obtain copies from the above address.

A sixty-four page booklet entitled "60 Prize Winning Photographs and How They Were Made" is being offered for only 10c. Everyone of these pictures was a prize winner in its class. The booklet was edited by Ward D. Morgan and in addition to the pictures there are comments by Mr. Morgan and full technical details for every print. Write the National Educational Alliance, Inc., Dept. 12510, 37 West 47th St., New York City, enclosing 10c.

(Continued on page 637)



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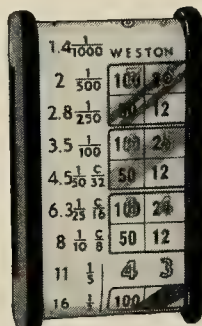
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Our Book Shelves

Photo-Lab-Index, by Henry M. Lester. Third Printing, Two Volume Edition. Published by Morgan & Lester, of New York City. Two Volumes, boxed. Price \$5.00.

The Photo-Lab-Index has proven itself the most popular of reference books for the darkroom, having sold rapidly through two large editions. And justly so for the book not only presents its material in handy form but also, through its Supplements, is always up-to-date. Naturally, the book has been constantly expanding, as the material of six Supplements has been added, and the publishers have brought out a new, two volume edition to simplify the book for new purchasers.

The new edition includes the Basic Set, originally brought out in 1939, augmented by all corrections, changes and additions published in Quarterly Supplements Numbers 1 to 6. It also presents a new, revised General Alphabetical Index and new Sectional Tabbed Guide Indexes.

The new, two volume edition comprises thirteen up-to-date sections offering all authentic, standardized formulas and data on the photographic materials of Agfa Ansco, Dasselville, Defender, Dufaycolor, DuPont, Eastman and Haloid; sections on film data, filter data, illumination, photo papers, miscellany (Weights, Measures, Conversions), and photographic chemicals.

Supplements Nos. 7 and 8 are now ready for distribution and they add two new sections: cine data and darkroom plans and instruction.

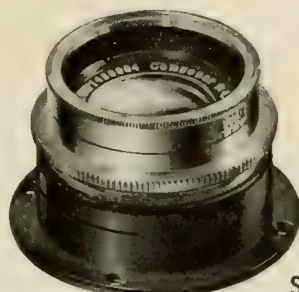
The reader may be concerned about the implications of adding new sheets and corrections to his book, as Supplements are issued, but he may set his mind at rest for the publishers have worked out a system that is the essence of simplicity. Pages in the book are numbered consecutively and each material bears a corresponding number and is plainly labeled "Replacement Page," which means, of course, that the old page is moved and replaced by the new; or "New Page," which means that the page is added in consecutive order. The "New Pages" carry a letter to identify their position, such as 5a, or 267e.

While speaking of ease and convenience, we should also mention the new ring binders that are far superior to the original type. These heavily constructed 8-ring binders are much easier to open and close and, in addition, the pages do not have the tendency to catch and bunch as they did in the old type.

All in all, the new Photo-Lab-Index shows a finish and polish that all new things acquire after they have passed through their grinning stage and have had the rough edges rubbed off.

OCTOBER, 1941

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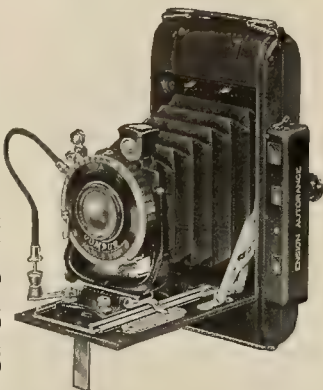
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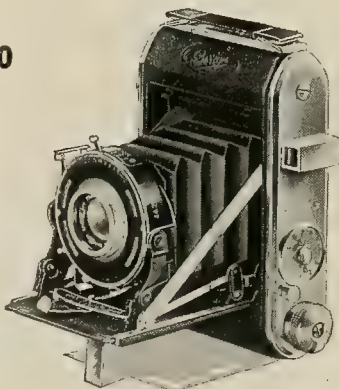
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The author, Edmund W. Lowe, is a chemist who has
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and the results of his personal experiments with almost
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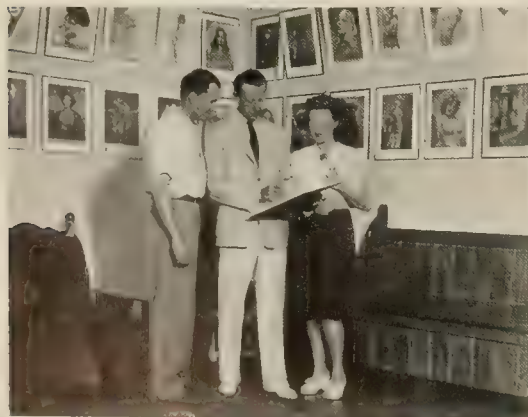
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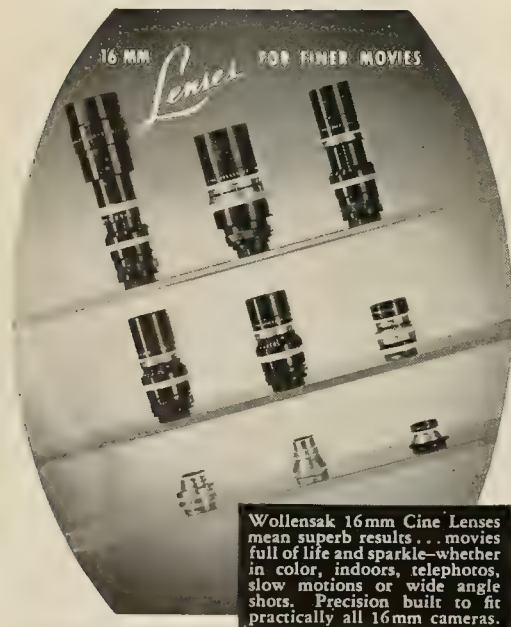
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Correspondence

What Now?

Dear Sirs:

I was a great satisfaction to read Nestor Barrett's article in the last issue of Camera Art, entitled "Photography: What Now."

I have put into words what photographers, in fact what all people the country are discovering—that art is as essential to every day life as science, or economics, or government; and what is more important, that art is a part of all of these.

People have long been afraid of the term "art" because they have had the wrong conception of its meaning. Art, they thought, was a creature belonging to a group of psychotic geniuses with haunted eyes, transient souls, and well-exhibited eccentricities.

But with the advent of popular photography, people in every walk of life began to succumb to their inherent creative urge. At first they were a little ashamed to admit that they were aware of beauty, so they let in charming shots of garbage cans, tenement houses and dirt. Now we are learning to distinguish, and high time that we did, between fads such as the recent Squalor School of Photography and a truly lasting and satisfying beauty. Emerson says: "... if eyes were made for seeing, then beauty is its own excuse for being." We all have eyes, and most of us are just discovering the fact.

The sooner we realize that reality lies deeper than dirt and vermin, the sooner we will make photography what it should be—pleasure and a teacher in this new era of art and beauty.

Sincerely yours,

Wm Mortensen.

La Jolla Beach, Calif.

Dear Sirs:

I word of comment of Mr. Barrett's article in the October issue, I feel, is necessary. I heartily agreed with everything said by Mr. Barrett mentioned that part about the decline of the "harsh glossys" and the "art school" in the "better salons."

I might there, as far as I was concerned; the whole story dissolved into a mere hope for personal desire, masked by quotations, and the return of the use of the paper negatives and bromoids. (However, I do agree with his quotations.) Lord help us, though, if we have to record the beauty of America by veiling it with "manipulative branches." It is so impossible to record the beauty that America's by pure photography? Or must we depend on the creative imagination of the manipulative expert to place the aesthetic niceties into the print which he failed to see or record when making the negative?

I must also disagree with Mr. Barrett's statement that the swing is away from "harsh realism," as he puts it. Harsh? Perhaps yes. But sincere realism, no! This is being proved every day by the greatly increased use of photography to portray the very phase of existence. Perhaps the style will change somewhat from time to time in art exhibitions, just as styles change in

(Continued on page 651)

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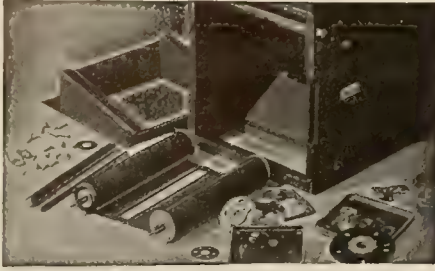
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(Continued from page 649)

thing. But in every decade there will always be a Brady, a Weston or a Stieglitz to uphold the sincerity of pure photography.

I appreciate the efforts and also the results obtained from the various printing processes that have been used in the past and certainly will be continued in the future, for certainly there is a definite place for these in photography. But to say that the processes should be used instead of pure photography because pure photography is "harsh," is the wrong approach. Need I say more than to say: "Just study the work of the photographers mentioned above."

I thank you,

F. H. Ragsdale.

Los Angeles, Calif.

Dear Sirs:

There is a trend from stark realism," says Mr. Barrett in "Photography: Now What?" Does he know that there are always trends? I have read of many in my few years of photographic interest. He embraces the salon, the documentary, the f64.

And while he stresses documentary as a means of propaganda, does he know that the man sees but little of this type of photography? Does he know that it is the professional and not the vast army of amateurs who are documentarists? And does he know that the amateur and not the professional whose work embellishes the salon? And knowing this, would he write the same article again? I think not.

And while one's understanding of "art" is largely personal, to the minds of most, it has been a modicum of art—if any—in documentary photography, or, for that matter, in most f64ism.

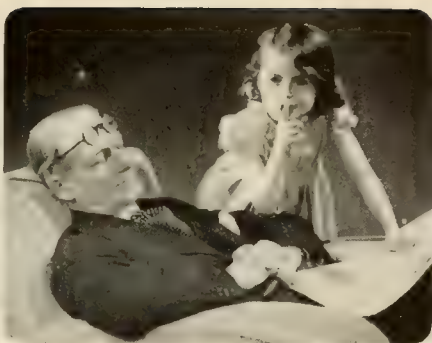
Fortunately, only a limited minority found self-expression in picturing the beauties of the houses, bed pans, garbage pails and harp, gaunt and grossly pregnant dust on a woman. Grapes of Wrath did a far better job than did all these camera sadists.

Or will there be any marked swing back to paper negative, bromoil or any similar process. For it is rare that any medium repeats its past. F64ism has made its mark. The mark has been made by exploiting the mechanics of photography. It has stressed lens quality, crisply defined detail. And these are there but cogs in the making of the print, the older processes of the past 4,000 often have destroyed these qualities. And these are things we love too well to desert for any desire to escape reality.

Photography is growing up. It is divorcing itself from the painter's concept of composition. It is learning to see beauty in light and texture, the sensuousness of photographic form—things no other art has expressed so well. The synthetic photograph is too sweet of yesterdays' salons are being as well as the purely mechanical thing.

These things are passing as part of the normal change. Attaining manhood, photography is now a medium capable of expressing the realistic, the romantic, even

(Continued on page 694)



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John C. Rogers, Alexandria, Va.

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What Is Pictorialism?

Nancy Newhall

PICTORIAL is still the word that best describes the kind of photography most of us are interested in—the making of *pictures by photography*, the expression of something within us that *only photography* can express.

Unfortunately, it has come to designate for most of us the work of a group of people who have thought too much about the word “pictorial” and not enough about the word “photography.” The majority of them are sincerely groping for expression and have no idea that they are the victims of a century of muddled thinking. Meekly they accept the fiction that the photographic process is too harsh, too imperfect, too unselective to make pictures without the aid of the human hand. Docilely they learn the formulas that are supposed to produce art. And so they labor for a month or more on a single print, deleting unwanted parts, adding bits of other photographs, perhaps making a paper negative, never dreaming that the end of all this effort is to imitate a school of painting that died of anemia more than thirty years ago. Others, less often identified with pictorialism, try by strictly optical or chemical means to give their photographs the “look” of a current art fashion. These are the people who construct things to photograph—patterns, elaborate stage sets with carefully posed models, even sculpture. The aim of both groups is the same—the imitation of painting—and the thinking of both is deeply, basically confused.

The confusion is as old as photography itself—older, for it is the same confusion between the hand and the machine which has led to such tragic waste in nearly every human activity. *It is very important that we root this confusion out of our minds once and for all.* And in order to root it out, we



"Parade"

Jack Manning, New York City

*Image of Freedom Competition
Museum of Modern Art*

must know why and how it grew and where its dying tentacles feed upon our thinking.

Nearly all the most persistent misconceptions have been contributed by painters, who, with the best intentions, have tried to apply to photography what they learned in the academies. Many outstanding photographers have had some art training and found it useful, *but they did not try to make photography a substitute for painting*. And a number of great painters have found photography full of interesting suggestions but their paintings do not look like photographs.

That summer of 1839, when photography was given free to the world, people were astounded to see that it was not like painting. Looking for hoaxes, they held magnifying glasses over these first daguerreotypes—and discovered, compressed on these bits of mirror-like metal, more detail than the human eye could grasp at a glance or the human hand ever record. The first impact was one of truth; instinctively, they believed that objects



"Armonk"

Andre Kertesz, New York City

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"Evening Shadows"

Q. O. Gilbert, M.D., Oakland, Calif.

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were as photography represented them. One painter said that painting was dead. In this atmosphere of awe and wonder, the first creed developed by photographers was that the delicate and accurate drawing of light should never be disturbed by the crude bunglings of the human hand. This creed, which has stubbornly resisted all fashionable attempts to destroy it, implies the recognition that photography is a new and independent medium demanding a new approach and a new vision—*photographic vision*.

To be sure, the early processes were crude; they could not record motion; skies were left white and red appeared black. The great early photographers, like the best photographers in any period, used their medium to the full, turning its faults into virtues and hailing each new technical development with delight.

But the painters, after the first flush of excitement, became increasingly irritated. Detail that nobody wanted or noticed marred their best attempts. They cried out for ways to eliminate these ugly intrusions, ways to select and emphasize and combine—ways to make photography into what they felt it should be: an easy way of making the pictures to which they were accustomed. One after another they came forward with suggestions for "raising photography to the height of an art."

In 1853 Sir William Newton, a painter of miniatures, felt that while infinite detail and needle sharpness might be appropriate in scientific and



"Freedom of Religion"

Alexander Alland, New York City

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Museum of Modern Art



"American Forms"

Arthur S. Seigel, Detroit, Mich.

Image of Freedom Competition

Museum of Modern Art

topographical studies, they were a nuisance in artistic work. He suggested putting everything slightly out of focus for the sake of greater breadth and atmosphere. Adam Salomon, a sculptor, dazzled the salons with his "creative retouching." Gustave Le Grey, a painter, made negatives of skies and printed them into his landscapes. If skies, why not other things—figures, foregrounds, still life? To painters trained in the academies to combine many sketches into one composite painting, the idea was natural and normal. O. J. Rejlander, a painter, startled his contemporaries by combining thirty negatives into one enormous moralistic whole entitled "The Two Ways of Life." H. P. Robinson, another painter who used fewer negatives with more taste, made highly successful anecdotal pictures like those in the academic painting salons and wrote, in 1869, a book about his methods. This book, "Pictorial Effect in Photography," ran through many editions and was several times rehashed into new books by its author. To this day it appears in current books and magazines in the words and under the names of people who probably never heard of Robinson.

Let us stop and examine Robinson more closely, since he is probably more responsible than any other single man for the confusion between photography and painting. He took up photography in 1852; until he died, in 1901, he was, in the minds of hundreds of photographers, "the uncrowned



Arnold Eagle, New York City

Image of Freedom Competition

Museum of Modern Art

king of photography." During this vast span, some of the greatest photographers came and did their work and died. Photography itself changed in many ways. Robinson went on winning medals. He had glimpses of the real character of his medium. But he had been trained as an academic painter and he believed himself utterly right in applying his training to photography. He taught the dry old formulas of composition—spots, triangles, chiaroscuro—claptrap painters were even then abandoning. He constructed elaborate naturalistic settings in his studio—even making a brook from his darkroom drain—and posed young ladies disguised as milkmaids gracefully among fake stumps and heathery hillocks. Real people he found awkward and self-conscious, real places unpredictable and uncontrollable. Hollywood and Vogue would have understood him. Always in his mind was the ideal of academic painting and he felt that combination printing, creative retouching or any other means were justified if they enabled him to approach that ideal more closely. His book was manna from heaven to thoughtless amateurs. Here were rules they could memorize and great names like Turner and Sir Joshua Reynolds to quote. With such maxims and helpful hints before them, turning out a prize-winning photograph seemed easy. The bitter truth that real photography, like all art, comes from within and cannot be taught, has always been hard to swallow.

Photographic salons sank to a new low. They were plastered from floor to ceiling with anecdotes, cute or moral, picturesque grandfathers, sentimental maidens. And all of these photographs were as sharp and slick as the paintings they imitated. Earnest photographers grew more and more disgusted. Sharpness itself came into disrepute.

By the middle of the eighties, this disgust grew to the proportions of a revolution, led by P. H. Emerson, a young physician who had given up a brilliant future in medicine expressly to clean up photography. Robinson he dubbed a "wiseacre," his book "a senseless jargon of quotations," and his combination prints "vapid, flat, inane, bigger and more worthless than ever." Emerson cherished his own delusions about art, but he thought about photography with remarkable clarity. In his book, "Naturalistic Photography," published in 1889, he set forth his belief that photography is a medium capable of fully expressing the individual vision of an artist, and that, thus used, it becomes art. He felt that it should be presented with the dignity of an art. A fine photogravure seemed to him an original equal to any print. He was convinced that the effect of a photograph lay in the untouched image cast by the lens and that any attempt to change it marred that effect. This image, however, he felt, should not be indiscriminately and exaggeratedly sharp; the sharpest area—never sharper than when seen by the human eye—should be the center of attention, with the other areas and planes becoming softly less distinct with distance. He loudly condemned out-of-focus blurs and fuzziness, just as he thundered against the rough papers and arty processes which were another symptom of the revolt.

Emerson believed in real places and real people. He felt that there were more things in heaven and earth than were dreamed of by an artist, and that it took unusual vision and perception to find and interpret them. Compositional rules and formulas appeared to him not only futile but harmful.



"Democratism"

Edward Entin, New York City

Image of Freedom Competition

Museum of Modern Art

The "inventions" and "improvements" used by Robinson were for him confessions of inadequate vision and bad selection.

The scope and classic simplicity of Emerson's message came to some of his contemporaries, notably Alfred Stieglitz, like the expression of their own instincts. Others, who, like Robinson, totally missed this spirit, regarded his theories of composition and focus as heresies. On one thing, however, they could agree: there was a crying need for exhibitions devoted to photography as an art. A number of societies were founded, of which the most important were the Linked Ring, founded in 1892 by Robinson and others, and the Photo-Secession, founded in 1902 by Alfred Stieglitz. The first became international in scope; the second was exclusively American.

All this talk about photographic art went to the heads of photographers. If photography were art, it should look like art (i.e., painting or etching or drawing) and they as artists were certainly entitled to artistic license. Some few of them had the vision Emerson held necessary, but for many the concentration on the appearance of the final print was enough. Emerson's subtle focusing control they distorted into extreme soft-focus; they added Robinson's dry little formulas and combination printing; they adopted rough papers and experimented with the many manipulative processes, such as gum-bichromate, then coming into vogue.

To Alfred Stieglitz, already a monumental figure in the photographic world, these could never be more than experiments; instinctively he rejected them in his own work. He came to regard them as alien to a machine medium and utterly unnecessary in the expression of vision. But he was, and is, a man without formulas; already he had dedicated his life to fighting for the right of any genuine artist to say what he liked in any form he liked. In the magnificent pages of *Camera Work* all kinds of photography are represented—anything that seemed to Stieglitz to have an idea and a quality behind it. His own work, both in his publication and the shows he managed, he kept in the background, with the result that even his co-workers in the Photo-Secession regarded his photography as old-fashioned. It took the passage of years and a revolution in the arts to prove to them that it was they who were pursuing a dead thing. In grappling with this appalling discovery they began to realize that Stieglitz's direct and simple statements stood with permanence and grandeur beside the revelations of the new vision in painting. Abstract seeing, the machine esthetic, and the influence of the movies combined powerfully with this realization. They began to explore the despised photographic process for its own sake, and made use of "accidents" such as solarization and double exposure. Some of their experiments, being merely photographic approximations of abstract or surrealist painting, remained cul-de-sacs. The most important results were a deep respect for the integrity of the medium and a new mobility in seeing.

It was at this point, unfortunately, that the conservative section of photographers consolidated in the name of pictorialism, preserving not the spirit of the original workers but the methods they had thrown aside. To all these dead husks—extreme soft-focus, rough papers, arty processes, combination printing, compositional formulas—they added old abuses against which the others had fought, such as sentimental subjects and the salon system with its stultifying hierarchy of medals, and even new abuses, such as the paper negative and the stipulation that all prints submitted must be of a certain ever-increasing size, regardless of the quality of the negative or the requirements of the subject. The gulf between the academic and vital sections became as wide as it had been in the eighties; the same futile wars on composition and focus, using the same old ammunition, exploded in the pages of the photographic press.

Stieglitz went on to establish beyond doubt that photography may rank as an art; his two great series, the cloud-images known as the Equivalents and the portraits of Georgia O'Keefe, rank with the highest human expressions in any media. More or less under his inspiration, a number of younger workers grew up in America, who, because they adopted a very severe and simple technical standard of diamond-like detail and straight prints embracing the richest scale from white to black, became known as the Purists or the *f:64* group. Their direct and intense interpretations of nature often attain a remarkable lyric quality. The younger workers in Europe displayed a similar emphasis on vision, but cared little for technique so long as they obtained an effect. For them photography was pre-eminently an instrument of discovery. They took their small fast cameras



"Menemsha"

Thurman Rotan, Hastings on the Hudson, N. Y.

Image of Freedom Competition

Museum of Modern Art

into places where cameras had been clumsy or useless before, recording the most fleeting aspects of the life around them, finding new and significant relationships of time, form and space. Both approaches are equally photographic; both are impossible to the painter. Both contributed something—the first its technique, the second its viewpoint—to a new type of social comment known as documentary. This movement gave a new impetus to still photography, the movies and the press alike. It was also partly responsible for the renewed appreciation of the great photographers, such as Brady and Atget whose straightforward work, dependent on vision alone for its distinction, forms a tradition unbroken by pictorial fashion from the earliest times to the present day.

Photography now, like everything else, is undergoing change in the face of world-shaking catastrophe. The growing mutter of discontent in the ranks of the pictorialists, the ever-deepening urge of the Purists toward larger and larger conceptions of life, the realization of the documentarians that they are in a rut and that the world needs positive expression even more than surgical analysis—all seem to point to some new development. The limitations imposed by war will squeeze from the hordes of photographers all but the most useful and the most determined. There is no place for cobwebby fallacies in the slowly evolving shape of things to come.

For Drama In Pictures

Al and De Vera Bernsohn

STARK terror grips the little girl as she clings closely to her father. Struggling hard against the fear that racks him, the man stays rooted with a protecting arm around his child. Together they stare horrified at the flame-licked twist that once was their home.

Looking at it, at this scene with its shocking emotional wallop, the observer senses a whole dramatic story: Father and daughter playing before the fireplace after dinner, father listening while she says her prayers, tip-toeing in after she falls asleep to tuck the blankets a little higher, kissing her, going to bed and then . . . this. Maybe mother didn't get out. Maybe a pet is now gone forever. Maybe they barely escaped this pyre. Maybe—

But that's enough. The picture (Fig. 1) has done its job of conveying a sense of drama to its observers. It's another job well done by Karl Oeser, key photographer for the Chicago branch of Sarra, Inc. Karl specializes in no one phase of photography; running through a collection of his work, however, it'd take a cold person, indeed, not to be impressed with the varied recurrence of drama in his prints. It may be a whole story or just a mood well caught, but it's drama, real and stirring.

How does the photographer select and obtain dramatic material? How does he corner emotion on a sheet of photographic paper?

"First you get yourself in the mood of the picture you're taking," says the forceful, little Alsace-Lorraine-born photographer. "Then you can tell when all the action, lighting and moods of the characters are in harmony with the whole picture or what's missing.

"If you've worked out a situation that tells a story, choose models to fit that situation even if it means going out and getting a stranger to pose for you. If you're starting with a model, select an idea to fit him. One—either the model or the idea—must be tailored to the other." A humorous-looking man may be a sourpuss in real life, he explains, but he fits well into a picture of, say, a man trying to wiggle a fly off his nose. No matter



Figure 1

Karl Oeser

what a wag the cadaverous-looking fellow with the deeply lined face may be, he's a more serious model in photographs. Sometimes the studios have to resort to all sorts of artificiality to obtain results we accept as "reality."

Models afford probably the simplest and most effective way of telling a picture story. The sunny little child, all cheer and brightness, makes you feel a little more warmly toward the world. The somber, hollow-eyed old woman with a worn shawl is a low-key subject that wipes off smiles. One of the healthiest experiences a photographer can have is to pose as a model for a friend, Oeser has found out. He is frequently found in Sarra's photographs. In Fig. 2 he's second from the left. This participating in pictures from the other side of the camera helps you understand the problems of modeling better and is particularly useful in giving the photographer knowledge of the stimuli that brings the desired reaction from the models.

The model should project his or her feeling from the picture to the observer. If he fails to do so he's either poorly chosen or badly handled by the photographer, according to Oeser.

"Amateur photographers, particularly those in the larger cities, where model bureaus are maintained, might find it interesting to try working with professional models sometimes. If the fee is too high for one man to handle it comfortably, camera clubs might try it as sort of a community project. It's a pleasure to be able to explain a story to an expert and have



Figure 2

Valentino Sarra

him create the mood without smirking or hamming. We use professional models whenever the subject is the sort that calls for anything creatively dramatic," he says.

He thumbs through a model book, some of the children in which, at seven or eight years of age, have had several years of professional experience. Most of these show surprising ability when a story is simply explained. Some younger ones must be handled in a more primitive manner. A two or three-year-old, who persists in looking cheerful despite the fact that the picture is to show him as a new orphan left without insurance, suddenly finds himself deprived of a precious toy. People about him speak in hushed tones. Lights are kept dim and gloomy. A very real situation of tragedy is built into the recalcitrant model's mind. Expert adult actor-models, who are also in the picture, transfer some of their feeling to the child. By the time any or all of these techniques are employed the reality of the tragedy in the child's pose and expression can't be questioned. (Fig. 3.)

A seven-year-old girl can't get exactly the expression Oeser wants. He wants "Fear" personified. He sits with her in front of a large mirror and makes a face in the mirror where she can see it. "Copy that," he orders. She tried. "No. Pull your face tighter . . . That's it!" In front of the camera she repeats the expression once or twice. Then Karl rests her for a few minutes. A couple more exposures are made. One's sure to be good (Fig. 4). The rest period is to keep the face from looking automatically



Figure 3

Karl Oeser

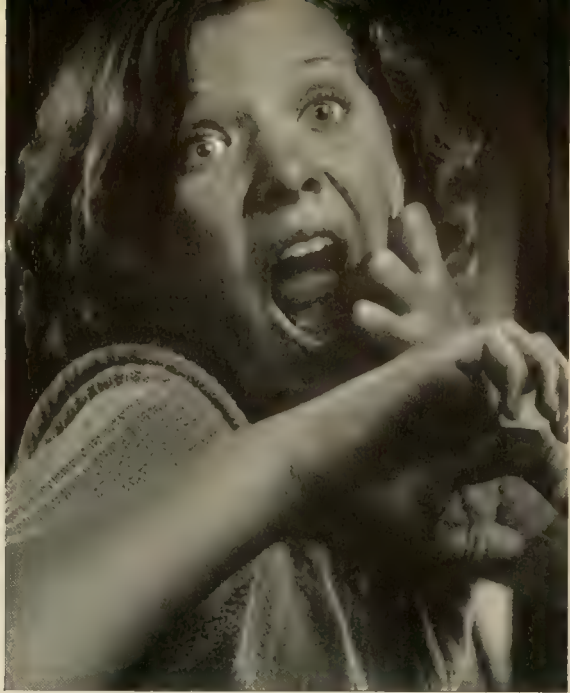


Figure 4

Karl Oeser

adjusted. An overdone facial expression, as any moviegoer can testify, is staler than last week's angel-food cake.

Tears? "Onions aren't used any more to make tears for pictures. They're not dependable," the photographer says. "Many models can cry just by willing themselves to cry. Others need a whiff of a camphor bottle or dilute ammonia. Sneezing powder, the kind sold by "novelty" houses, brings much more sincere *gesundheits* than pepper, too."

A picture shows a hearty, good-natured fellow laughing open-mouthed and delighted at the wheel of his new car. To our "How'd you get that?" Oeser replied by jerking his head in the direction of a portable phonograph.

"This man wasn't laughing, hadn't been laughing and had no intentions of laughing when we were working on the shot. We tried everything unsuccessfully until we put a laughing record on the phonograph. That worked" (Fig. 5).

It's better to have just the proper model than to have a good, all around one when you want an exceptionally genuine picture, Oeser contends. A Community Chest photograph shows Oeser's favorite tragic model in one of her many roles. This time she's a destitute mother clutching an uncomprehending youngster to her breast (Fig. 6). The child was selected from a local orphanage.

It's better to have just the proper model. He's visited farm after farm seeking a farmer who looks like a farmer. They seldom bring models out on location for shots of this type. Too few professional models can run a tractor. For a shot of a miner it may be necessary to look over an entire shift at a coal mine before a fellow who looks the part is found. No make-up can quite match the face of a miner who's been working awhile. His beard



Figure 5

Karl Oeser



Figure 6

Karl Oeser

stubble all clogged with sweat and coal dust makes something photogenic, if not exactly lovely.

Person after person was asked to hold his chin higher and squint tightly before a man could be found to carry out ashes in a picture (see cover).

As important as the actors in a dramatic still print is a good vehicle for them. The material in the print should be inherently dramatic: a boy receiving his first pay check, the conflict between a man and machinery, a knock-out punch, the rookie fumbling through the Manual of Arms, anything that creates an emotional response, some sympathy or amusement, in the observer will do.

Once the theme of the picture has been selected, Oeser seeks out the simplest, least pretentious, least confusing means of *suggesting* it. He doesn't come right out and tell the whole story. That wouldn't hold the observer. He suggests it, let's the observer fill in details for himself, makes the onlooker a part of the picture. He could show a muscular man tugging at a lever and setting a factory full of machinery whirring, but he doesn't. Instead, he photographs a pair of tense-muscled hands, grease-coated and capable, forcing a bit of machinery to function (Fig. 8). "Say a lot with a little," Oeser constantly admonishes. "It's easier on the photographer, more appealing to the fellow who sees the print and a stronger challenge to ingenuity." He does most of his cropping before the negative is exposed, then he does more cropping after it's in the enlarger. He does in photography what Arch Oboler does in radio scripting. He "under-dialogues" and with equally admirable effect.

After the story of his picture has been plotted, cast and cropped, there remains lighting as the principal technical bugaboo which can either make



Figure 8

Karl Oeser

or spoil the desired effect. Karl starts with his main light placed and turned on. Then he builds from there, highlighting one portion with a spot, using a soft, dim light or a reflector as a fill-in where a shadow is a little denser than he wishes it, adding strong light to background and to balance the main light when the subject is to be brilliantly illuminated. He uses many low-powered lights rather than few intensely brilliant ones. About six lights are used in Fig. 9, a well-cast and plotted picture which could easily have been bungled had lighting been less expertly handled.

Spotlights are a favorite with this photographer. They don't scatter light all over the picture and they catch textures and detail in a more sharply cut manner than do lights in plain reflectors. The spots that are used at Sarra's are seldom extremely high-powered ones. Occasionally a 750-watt spot is employed, but more often they're 500-watt ones or even smaller. Fast film and lenses permit the studios to keep lights weak and still to stop down the lenses to get almost any desired depth of focus.

Oeser has been in photography ever since he was a 14-year-old, wetting plates in his grandfather's studio in the Old Country, so he's pretty sure about his judgment about exposures. He uses an exposure meter occasionally but usually disagrees with the thing a little. He recommends them, though, for photographers who weren't born in the business.

"Dull lighting, with no sparkle to it, on a sad subject. Low key. One or two lights. They help create the mood," he staccatos. "Dabs of vaseline



Figure 9

Karl Oeser

and spots bring out highlights nicely. Not too much light, but open lamps well placed, for happy subjects." A package comes in the day's mail. He opens it. It's five prints he sent to the Iowa State Fair "just to keep my hand in." One won the major or sweepstake competition; three others won firsts in their division, and the fifth was second in one of those three divisions! He is delighted. Then back to the interview.

"It doesn't take a studio-full of equipment and a lot of props to do a good job of dramatic photography, although a good supply of equipment does simplify things. This little Leica shot was done with equipment as good as that most amateurs have." And he produces a $13\frac{1}{2} \times 16$ print! (Fig. 10).

The many little darkroom tricks that are acquired through years of camera work stand Oeser in good stead when he selects dramatic touch for his work. Another Community Chest picture shows two little children hovering in a doorway, shrinking from the glare of a patrolman's flashlight. The picture was taken in the usual manner in the studio, but Karl was dissatisfied with the weakness of the rays from the light. Two sheets of black paper formed the edges of the light pattern and the rim of the flashlight was followed in masking off everything behind that part. This three-piece mask was placed on an unexposed sheet of film, the negative serving as a pattern for its placement. The negative was removed and the light was flashed on for a brief instant. When this second negative was



Figure 10

Karl Oeser



Figure 11

Karl Oeser

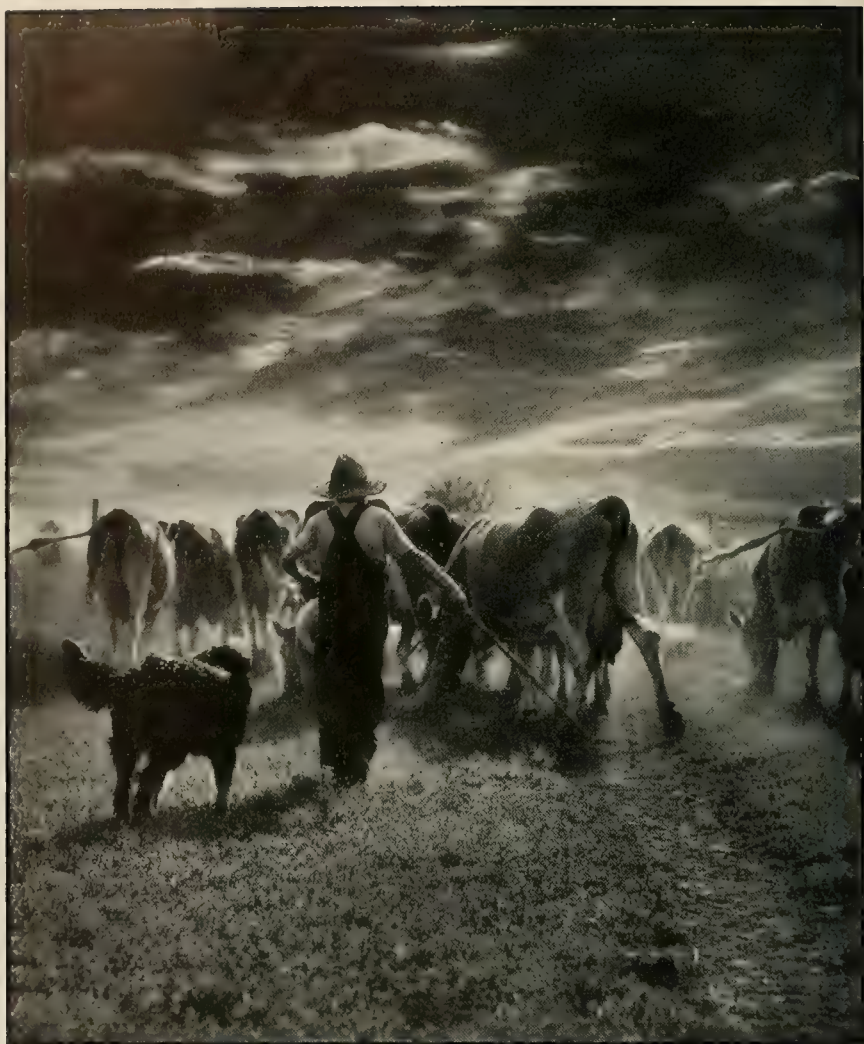


Figure 12

Karl Oeser

developed it showed only the pattern of the light rays. The part farthest from the flashlight was reduced partially to lessen its prominence and the two negatives were placed together and printed as one (Fig. 11).

It's not all studio work, though. One of Karl Oeser's favorite shots shows a boy and his dog driving cattle into the sunset (Fig. 12). It looks like one of those rare, lucky shots, but it wasn't. He becomes so accustomed to sensing the dramatic that camera placement, filter selection and recognition of the subject were instinctive.

He insists anyone can acquire those instincts.

Pictorialism For Beginners

Harold G. Grainger, A. R. P. S.

Directional Lines

In Composition

IN PREVIOUS articles on elementals to be observed in picture making, mention has been made of several which should be borne in mind if one's efforts are to receive sympathetic consideration at the hands of conscientious art critics.*

It is evident that if the principal mass, or in other words, the chief interest is not centralized, its position must naturally be more or less to one side. This thesis conceded, it follows that there must always be a large area of space to be filled. In this it is customary to introduce something of secondary importance as *compensation* to the principal mass. This may, through its powers of attraction, striking tonal contrast (for example) not only counterpoise the principal mass satisfactorily, but considerably influence the success of the picture.

These observations lead us to the consideration of lines or contours of objects which, according as they are viewed from different angles, necessarily vary considerably in direction. The most pleasing combination of line direction in any subject which interests us will usually be found to conform to principles which, from long usage, are universally acceptable to those possessing artistic taste. It is well to remember that in the endeavor to find the best viewpoint the pictorialist is bringing into play ability to

* Previous articles by Mr. Grainger have appeared in April, May, June, July, August, September and November, 1936; March and November, 1937; and February, 1938.—Ed.



Figure 1



Figure 2

select exactly what he feels helpful to his project and, on the other hand, to reject, when possible, what is thought to be unnecessary. It is one opportunity at any rate to infuse that almost indefinable quality—individuality—into one's efforts.

To revert to the subject in hand. It is obvious that change of shape is not only evident as fresh viewpoints are tried out, but of even greater import is the variety of line observable according as objects are correlated with each other. Nor should it be forgotten that as the height of the camera from the ground has, additionally, a great influence on line direction, such advantages as may here be available should be exploited.

There is another, and very important, aspect of the subject we are considering—one perhaps to some less easy, yet nevertheless very necessary to appreciate. It is the fact that while many lines are definite in formation and direction; that is, the eye can follow them without difficulty; others, less tangible in character, require a little stretch of imagination to discern their existence. In "A Winding Path," Figure 1, for example, the easily followed trail is representative of the first named, its direction is beyond doubt. To the keen pictorialist the intangible type, less perceptible, but equally necessary in picture making, should be observable with ease in "Sunny Afternoon," Figure 2.

In this picture exhibiting forceful, clearly defined lines there is in addition an invisible one which, with the exercise of just a little fancy (quite reasonable) will be found to assert itself as a curved "line of beauty." This curve, approximating the letter S, is commonly referred to as Ho-



Figure 3



Figure 4

garth's "line of beauty," a tribute to this great painter's skill in its employment in much of his work but notably in the drawing of figures. To the discerning, this line, graceful yet indicative of strength and vitality, will be observed in the stance of the lady in the punt for with just a little imagination the figure, from the set of the head on the shoulders, downwards toward the feet (as shown by the play of light on the dress) appears to conform to this sinuous line. Surely nothing else could so well demonstrate the action of this lady, alert, yet displaying no desire to hurry away from the conversation of her friend! This invisible "line" is one of the most valuable in the picture—indeed, without it the composition would lose much of its life and charm, for to be really successful composition requires a skilful combination of straight lines and curves to ensure strength and elegance, those characteristics desirable in all pictorial efforts.

There is general concurrence that in the appreciation of design the innate desire for curves is more pronounced than the impulse for straight lines. No doubt this is due to the obvious fact that, in itself, the curve is not only more beautiful than the straight line, but in addition it lends itself so much more readily to application. Of all possible arrangements of line in pictorial design the principle of radiation is supreme. The convergence to a common centre or, similarly, the divergence from one, of the principal lines in a picture is most attractive, an ensemble to which the emotions most readily respond. A familiar example, one where the principle is well developed, is the sun setting behind a cloud, as in Figure 3. Here the one bright spot in the heavens, from whence the hidden sun is seen to exert its influence over the whole of the sky space, commands attention: everything else is subservient to it.

Such pivotal points are obviously material to good arrangement in picture planning; therefore, the positions they are arranged to occupy should be consonant with their importance. Nor should it be forgotten that converging lines possess the power of carrying the eye along with them; these, therefore, can be effectively employed in guiding the attention to, or away from, the chief interest in a picture. If, on the contrary, by bold radiation of lines a comparatively unimportant point becomes unnecessarily impressive, the chief interest must as a consequence suffer corresponding deprivation of attention.



Figure 5



Figure 6

Here is an illustration, "The White Mill" (Figure 4), which clearly demonstrates not only the principle of radiation but its practical value in composition. Though only a river scene of a simple, tranquil kind it has, nevertheless, a certain amount of charm, a pleasing quality of restfulness largely due to the convergence towards the white-washed mill of the main contours of the subject, the banks of the river, the hedges, the skyline of the trees on each side and also their reflections. The extreme unaffectedness of such scenes as this give considerable pleasure to some people; they are perhaps some response to an unvoiced longing for a little respite from the rush of a troubled world that knows so little calm.

Examples of lines that converge or diverge are seen on every hand. Amongst the most familiar are paths, roads, ruts, ditches, railway lines, the margins of rivers, canals, etc.—anything liable to change in form as its recedes into the distance. From some selected viewpoints the contours of such objects may at times appear to run suitably; from others unsuitably, for our purpose. It is certainly wise to make the most effective use of the most serviceable as and when opportunity offers.

The principle of radiation is particularly evident in tree branching, plant forms, flowers, etc. So frequently is the principle observable in such things that it might with truth be referred to as Nature's own favorite. Look at Figure 5 of a root of primroses *in situ*.

The blossoms of fruit trees, fragile blooms of delicate pink or white, similarly exhibit the same principle in their growth; five petals or so to each bloom, linked to a common centre. Branch, spray, blossom and bud combine to display in their development this type of linear arrangement so important in art.

In Figure 6, showing a radiation of blossoms from a principal branch, it will not be difficult for the veriest beginner to follow the sweep of the lines, the structure, as it were, of this simple essay in still life photography, towards the same point of divergence. I should here like to draw attention to the value of still life work for the promotion of good taste in arrangement and planning of subject matter. Not only is there remarkable variety in choice of material available but backgrounds, lightings, etc., being under control, further exposures can be made if for any reason first efforts are not satisfactory.

The most casual glance at any photographic exhibition is sufficient



Figure 7



Figure 8

confirmation of the opinion held by many that in landscape work the radiation principle of building up a composition is one most often resorted to. And this is not surprising, for converging or diverging lines can be usefully employed in so many ways. Figure 7, for example, is based on this exceptionally beautiful type of arrangement. Could any other formation go further than this in its suggestion of strength combined with grace? It is but one instance of the "line of beauty" which, if only one has the wit to observe is one of the most frequently seen directional lines in subjects of this kind. The silhouette-like section of wood-fencing on the left provides a compensatory spot of dark tone just where most required to secure equilibrium to the composition.

In his enthusiasm for curves, however, the pictorialist should not be blind to the existence of directional lines of the straight type which, suitably applied, can be just as valuable in picture making as the curve. Such lines can be seen in Figure 8, in which the principle of convergence on an important feature is perfectly shown. Commencing in the foreground, the straight edges of the cast shadows move forward across the trimmed grass until, with a sweep, the sunlit tower of the church is reached. The echoing by the church tower in the middle distance of the sun-illuminated limestone wall pierced by the arch, thereby not only sets up an affinity between a foreground object and one in the distance, but accentuates in a delightful manner the different vertical planes.

The application of the principle of radiation to the early morning landscape subject, Figure 9, is particularly effective in more than one direction. First, as is at once obvious, the chief contours converging toward the dis-



Figure 9



Figure 10

tance carry the eye firmly into the picture space. In addition, however, the scale of tones by their gradual diminution in strength as this point of convergence is approached, provide further, though more delicate, emphasis to this part of the composition. This gradual reduction in strength of tone of dark objects as they recede into the distance is known as aerial perspective. In the landscape under consideration the preservation of this subtle quality was imperative if the quiet spirit of the scene at this time of day was to be assured. It is worthy of particular attention that in the pictorial rendering of outdoor subjects aerial perspective is very desirable.

While special consideration has up to now been given to important directional lines, there are, of course, others which merit more than average attention; indeed, their existence is frequently essential to good composition. For instance, lines which run in opposition to others are often of the greatest value; without them construction or pattern might be so weak, or lacking in stability as to make some subjects unworthy of attention. In "The Thatched Cottage," for example (Figure 10), we have in the path a well defined "line of beauty." But there are other lines which, though subordinate are amongst the most useful. One such is the roof line of the tiled outbuilding running inwards, immediately above the water barrels. Without this wedge-shaped section of tiling in opposition to the sloping contour of the thatched roof, this long roof-line would have run out, as it were, of the picture space, detrimentally to the strength of the pattern. It is a great help in confining the interest within the margins allotted to the picture. In fact the whole of this corner—the portion of outbuilding, the water barrels, etc.—is specially serviceable in securing to the composition the positive advantages of variety in line direction as well as an area of dark tone where most needed. The tree shadows on the turf, reaching out in a broad manner from the left of the picture towards the cottage front, are also useful. They provide a dark mass where desirable. Other serviceable components are the tall tree on the left, the grapevine under the eaves of the cottage (which adds charm to the front), and the light edged cumulus clouds—at their brightest in that part of the sky where most effective. Had similar cloud-brightness been shown on the right side of the picture (above the thatched roof) the whole effort would have been spoilt because of the display in this



Figure 11



Figure 12

less suitable part of the sky of something so attractive that attention must inevitably have been diverted from more important parts of the picture.

Figures 11 and 12, depicting incidents in a yacht race, forcibly remind us of the great advantage in picture making of simplicity in arrangement of subject. Note that the lines of the vessels combine in a particularly charming manner, grace with strength. Let us first examine Figure 11. At once it will be noticed that there is a confused presentation of the principal yacht, due to the mischance of two others clashing with it behind. It is also evident that the plan or design, an inverted triangle, is very, very stiff. Even the stabilizing influence conferred by the heavy mass of dark tone of the foremost yacht, or the additional, very welcome interest provided by the yachtsman, are not in themselves sufficient to make the composition agreeable, let alone counterpoise the unfortunate top-heavy arrangement of vessels.

Now consider Figure 12 in which only four yachts are shown. Compared with its companion the most noticeable improvement is the disposition of the fewer vessels, and their better, more coherent relationship with each other. Then the absence of confusion, coupled with a pleasant sense of containing curves in place of sharp angles, are factors which contribute in no small measure to the ready acceptance of this as the superior of the two efforts. The fact, too, that the yachts in this illustration convey the impression of infinitely more action is an additional reason why it is sure to give more general satisfaction.

While the possession of innate good taste is a great help in learning to sense the presence of useful directional and other lines, there is little doubt that the study and analysis of good pictures, followed by sincere efforts to put into practice knowledge thus acquired, must inevitably develop the ability necessary for the production of pictures possessing such qualities as will merit exhibition in better class salons.

Remember then the attributes of good composition, a masterly combination of straight lines and curves, to ensure strength and elegance. These, along with such other controllable essentials as correctness of tone, good massing, etc., are properties in pictures to which the emotions always readily respond.

Darkroom Daylight Douser

Maurice Kains

IF YOU are one of those camera fans that are still struggling along with a makeshift darkroom, you'll welcome this truly efficient window cover that I have thoroughly tested for two years. I don't understand why I didn't make it sooner, for it was a cinch to make and it has been a blessing to me, especially at times when I wanted to go dark in a hurry or for just a moment or two.

The accompanying sketches are quite clear, I think, and but little need be said in explanation.

A frame of pine wood is made to surround the two sides and top of the window. Then the bottom or open end of this frame is closed with a piece that will rest *on top* of the window sill. Now to this frame nail a piece of three-eighths inch plywood, to the side away from the window. If this window receives a great amount of sunshine, I would recommend a thicker piece of plywood, as the thinner stock often warps under intense sun rays. Next, an ordinary five-cent screen door handle or drawer pull is screwed to the bottom of the cover, on its face. And to the top edge is screwed a husky screw eye. This eye, you will see, is to engage with a headless nail or screw which is driven into the wall high above the window, when the cover is slid upward. This nail supports the frame when it is not needed. Or the cover can be removed completely, allowing more daylight to enter. When in use, the cover is firmly held against the window by means of two pieces of angle iron fastened to the wall at each side of the cover. In each angle iron there is a narrow slot filed to permit a pin to enter; the pin being securely installed at the sides of the cover. The bottom edge of the cover is next covered with some soft material, preferably thick felt. This will insure perfect light-tight contact between window sill and cover. Hot glue or several coats of

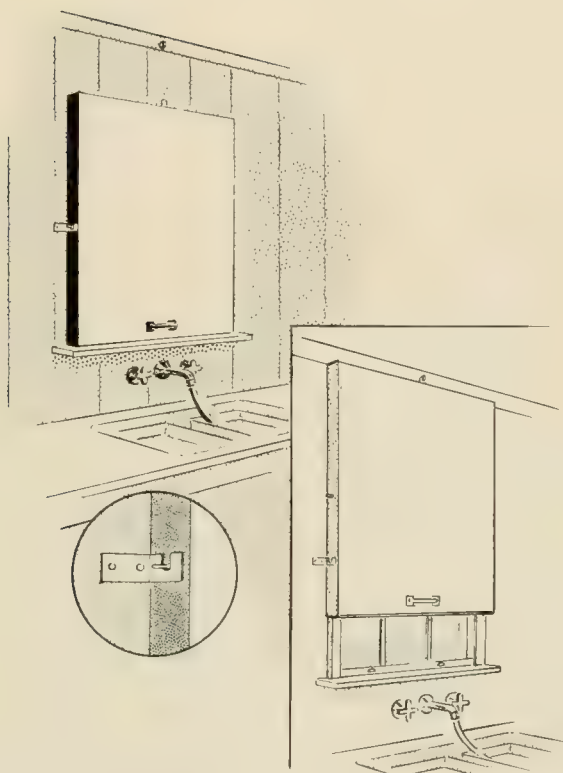


Figure 1

orange shellac will hold the felt in place. The cover is now ready for a test. This test should be made under the severest conditions, therefore it should be made on a sunny day. If sunlight strikes this window directly, the test should be made at a time when the cover will be expected to exclude a maximum amount of light. If your plywood is thin, the sunlight may give the cover a reddish glow, which won't do for panchromatic films. The remedy in such a case is to cover the cover with thick, white oilcloth. This oilcloth reflects darkroom work lights, so therefore serves a double purpose.

To be positively certain that the cover is absolutely light-tight, you should remain in total darkness for at least ten minutes before starting to search for light leaks. Then examine the cover *from all angles*. Especially from where your films will be during handling operations. Leaks can be stopped up with plastic wood, putty or felt.

If you do not care to use the oilcloth, a coat of white paint will help the appearance of the cover and help to make it waterproof. Don't paint it black. The use of black paint on darkroom walls is not a necessity, once the darkroom is made absolutely light-tight.

Now hop to it. You'll be glad, mark my words.

Cinema Section

Edited by

William A. Palmer

A DeLuxe Editing Bench

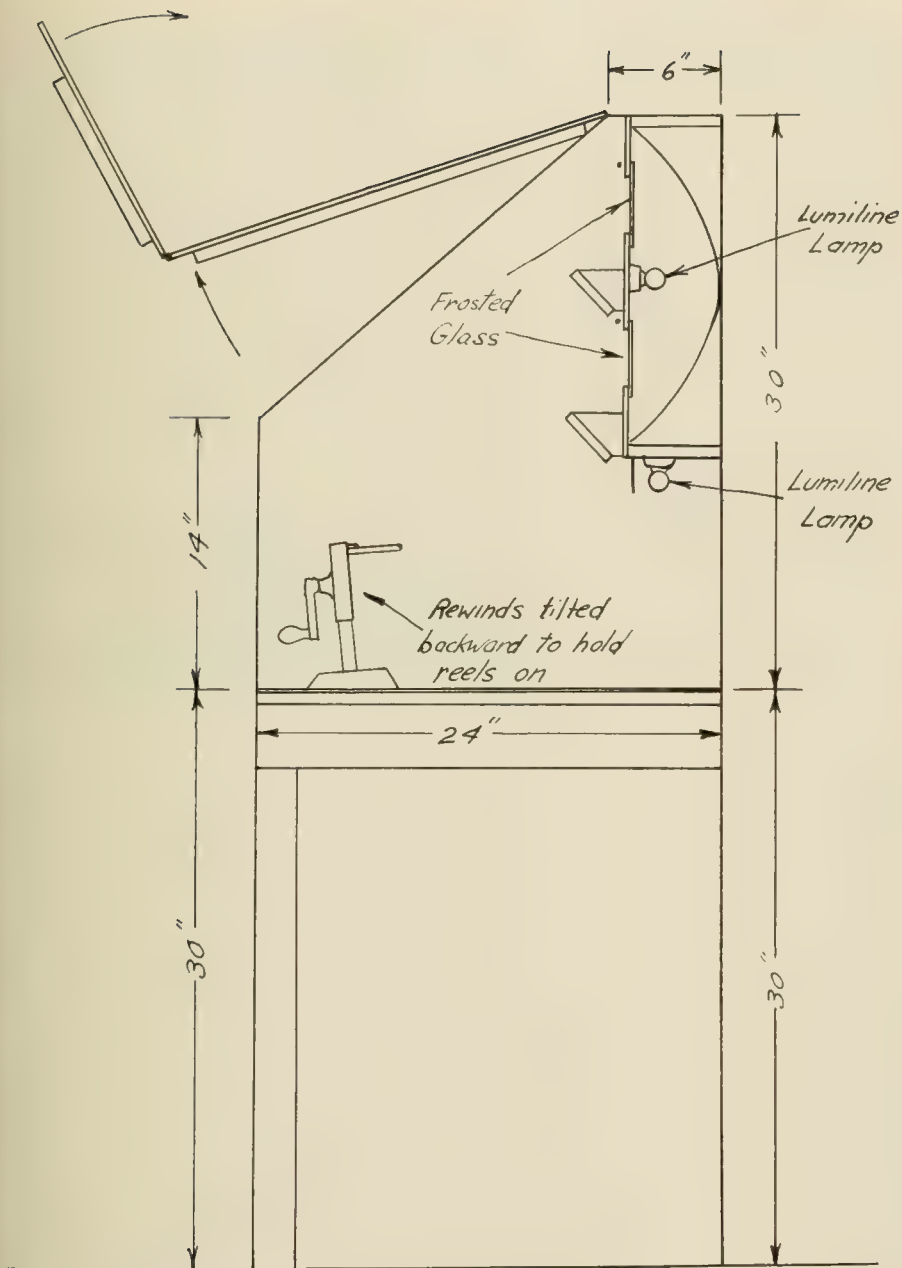
EDITING is perhaps the most important step in the making of a non-dramatic film of the type essayed by most amateurs. Yet so often the makings of a first rate film languish in some film tin waiting in vain for the few rearrangements, eliminations and title additions which would make a show piece. The importance of good editing is demonstrated repeatedly on the theatrical screen where frequently a "short" containing the most simple of ingredients will overshadow the feature picture. On analysis, many of these shorts such as the "Magic Carpet" series, the Fitzpatrick "Traveltalks" and the Grantland Rice "Sportlight" contain just such material as many amateurs have laid away on a shelf. Both professional shorts and the amateur material contain superb photography, often with the advantage toward the amateur, since he has Kodachrome to work with, while the professional cannot have comparable color without the staggering cost of Technicolor. But the big difference between the professionals and the amateurs is in the editing.

The better professional non-dramatic short has an interesting idea or theme and a logical order of scenes; it has a careful proportioning of screen time to each scene, so as to give a pleasing "tempo;" and above all it has had all the bad scenes with camera quirks eliminated.

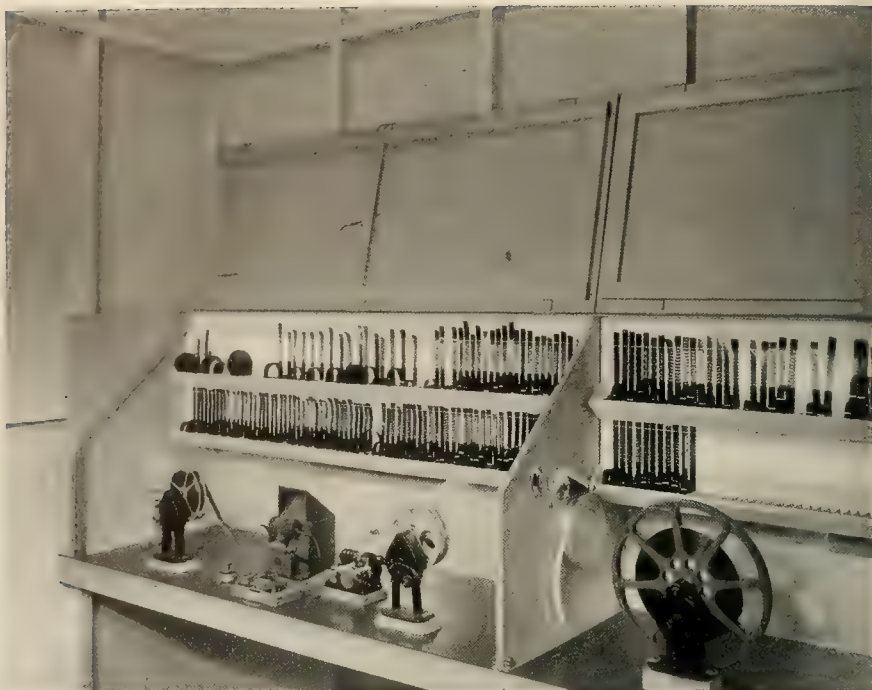
Good editing is not a difficult job as far as the ideas for themes and continuity are concerned. Most amateurs have many good editing plans for good material lying at hand, but it seems they never get around to the job. In other words, editing is mostly a mechanical bottleneck. It is too difficult to find the time, place and inclination to carry out a good editing job.

There is good reason for this being so. Film handling takes time, particularly for the preliminaries of getting ready, laying out the film on a place to work and keeping various scenes identified so that they may be found when wanted. So often when all is in readiness to really start cutting, it is time to quit and then there is the problem of putting things away. Lucky is he who has a film sanctuary in his home which can be left in status quo until the next cutting session, a little cubby hole in the basement perhaps that can be shut up until next time.

Various editing bench layouts have been suggested in these pages from time to time, all making use of some form of numbered storage compartments such as egg boxes, type cases and pill boxes. Recently, however, a design for an editing



Sketch of Editing Bench



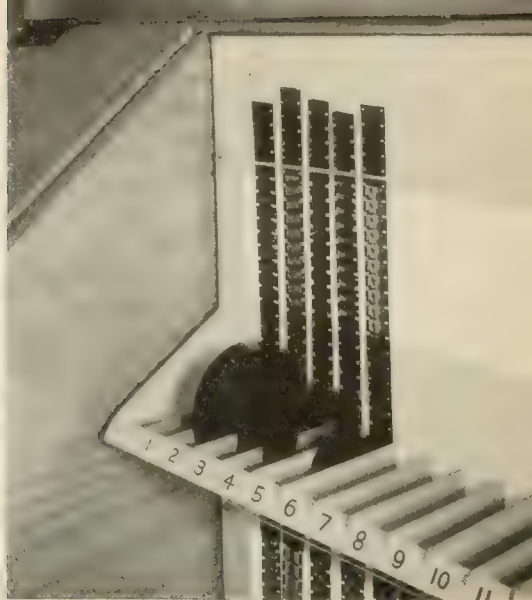
Editing Bench ready for use

bench was made up for professional work which has proved such a time saver and can so easily be shut up, away from dirt and meddlers, that we feel many amateurs would like to make similar arrangements in their homes. Its construction will require some skill in carpentry of a not too complex sort and an investment of some fifteen dollars in materials.

The editing bench is a built-in affair consisting of a good husky table built of two by four inch lumber for legs and having a top of three-quarter inch plywood. Over this firm support is nailed a sheet of one-eighth inch Masonite Tempered Prestwood which furnishes a smooth, hard, easy to clean working surface. The two ends of the bench are fenced off by plywood sheets which form the support for a hinged cover of plywood which can keep out dust during intervals between cutting sessions.

Above the working surface is the film storage rack which is the important innovation. As can be seen in the illustrations, the storage rack consists of two rows of numbered compartments for film rolls. These compartments are made by a piece of wood one-half inch thick by three inches wide affixed at an angle to a plywood backboard, thus forming a trough. In the one-half by three inch strip are made saw cuts on thirteen-sixteenths inch centers to hold triangular cardboard separators. It will be noted that the strip does not meet the backboard but leaves a gap or slot so that any dirt will not accumulate in the bottom of the film compartments. For more thorough cleaning, the cardboard separators are easily removed and the whole trough wiped out with a damp rag.

In the backboard of the film compartment assembly, above each row of compartments, are cut two long apertures which are covered by sheets of frosted



Close up showing how film is placed in racks

glass. Above these windows of frosted glass are strung pieces of "chalk line" cord. This last serves to hold the ends of the film up over the frosted glass and the natural curvature of the film holds it straight just like a flexible steel rule when it is pulled out of its case.

In back of the glass panels, as shown in the cross-section sketch, is a five inch space which is illuminated by two 60 watt lumiline lamps located on the back-board between the two frosted panels. In the box-like enclosure as shown by the curved line is placed a piece of white show card to act as a reflector. The light from the lumiline lamps is therefore diffused and reflected to give a sufficiently uniform light behind the film strips.

With this arrangement, an entire picture can be broken down to individual scenes and stored in the racks. One can then see at a glance the head end of every scene and make any amount of re-arrangement of scene order until it seems that the picture is "set." It is then a simple matter to splice up the scenes in the order of the numbered compartments and the film is ready for the final cutting operations.

On the table surface of the cutting bench are mounted permanently a pair of rewinds which were originally made for 35mm. film. They are used in preference to the regular 16mm rewinds because the spindles are long enough to take two pairs of 16mm. reel, side by side. This is very important for commercial work, since all editing is done on a work print until the scene order is satisfactory. The original film or master is thus spared the hazard of repeated projections. When the work print is finished, the original film is matched to it, frame for frame, by means of a synchronizer which is simply a double sprocket device with a footage counter attached.

Such devices as the splicer, viewer and synchronizer are not permanently mounted to the work table but are fitted with four pins on the base which fit into holes bored in the table top. All the various devices have the pins spaced in a standard position—at the four corners of a four inch by six inch rectangle. Thus any piece of editing equipment, viewer, splicer or synchronizer can be placed in

any group of four holes and be held from sliding around. Yet in a moment they may be lifted out of the way and the table top cleared.

One additional piece of editing equipment which is not shown in the illustration is always at hand for winding up the small rolls of unmounted film to be placed in the racks. This is known as a stripping flange and is like a one-sided film reel upon which film can be wound and then slipped off. A good substitute for a stripping flange can be made from a 100 foot Dupont camera spool. These spools are die cast in solid metal and, if one flange is machined off, they make fine things to wind up the individual scenes. A still simpler device for winding unmounted film can be made from a wooden thread spool. It happens that the hole in a standard thread spool, meant to fit milady's sewing machine, is just the right diameter to fit snugly on the fifteen-sixteenths inch shaft of the rewinds.

The small flanges of the thread spool should be removed to make it a true cylinder. If the rewind has a square shaft, a little whittling with a penknife will make the spool fit. In use, the film is wound around the spool snugly for a turn or two when the friction of the film on the spool will hold it. The length of film can then be wound up, using the thumb and forefinger of the left hand to guide it while turning the rewind with the right. The film can then be slipped off the spool to be placed in the editing rack.

Editing Procedure

Assuming that a number of 100 foot rolls have been returned from the processing station, they are screened once or maybe twice to get a good impression of the action, scene length and other characteristics. During the last projection the reels are not rewound until the last one has been screened. Then they are rewound, starting from the last reel projected, onto the stripping flange or wooden spool. Each scene is cut off and put by itself in a separate compartment starting with the highest numbers and working backward. This is done with *every* scene, unless it is definitely known that two scenes are already together in the right order and exactly the right length. This is not often the case, however, for almost always the camera is allowed to run just a little longer than necessary or there is a little jiggle as the starting button was released. Such slight imperfections are apt to be left in because one is reluctant to put in too many splices. This is poor practice, for a well made splice is always preferable to a blemish.

Having filed all the scenes they can be easily examined, since they will be head out and therefore right side up in the rack. The picture is then edited by shifting the scenes around to a new order beginning with compartment number one and so on. Without doing any splicing, it is possible to try a number of editing plans and get some idea of the screen result just by inspecting the order of scenes. When it seems that a good arrangement has been made, the scenes are assembled in proper order "heads in" on a reel on the right hand rewind. (To those who are new to film handling it is convenient to remember that, since the images on movie film are upside down on the film as it is run through the projector, the "head" or start of a scene is shown by the heads of any people in the scene. In other words, the top of the scene or heads of the people always are toward the start of the scene.)

When all scenes have been spliced in the order desired, the reel is rewound and screened. Faults are noted such as length of scenes, flashes or light streaks and camera wiggles. After corrections are made the film is again screened for critical analysis and more faults removed until the film reaches its final form.



"Seaward"

John Gibbs Holyoke, Pasadena, Calif.

First Award—Advanced Clas

✦ Mr. Holyoke shows us quite an interesting individual in a pleasingly natural pose which has a nice flowing linear quality and which seems to bring out the suppleness of the figure and the latent power of a fine physique. The whole of this has been expertly fitted into the picture space. Observe particularly the excellent posing of the hands and the nice compositional relationship of these with the face. It might help just a little if the large expanse of blank sky in the upper left quarter were broken up by a faint and definitely unobtrusive cloud, but we do not feel that that is at all necessary.

Data: $2\frac{1}{4} \times 2\frac{1}{4}$ " Zeiss Super Ikonta B; 80 mm. Zeiss Tessar, F:2.8; 12 x 16" print on Agfa Brovira Kashmir, sulphide toned.

*"Curves of Palomar"*

Harry H. Haworth
Pasadena, Calif.

there is almost no variation of texture. It was also necessary to control the very great directional force of the curving lines of the dome, for if that were not done they would carry the eye abruptly out of the picture in the upper right. Observe how successfully this has been done by bringing the sky down so that the force of the line is lost against the sky as it moves into shadow. The technical means of accomplishing these ends are fairly simple once the problems are fully visualized. Minimum exposure combined with fairly full development of the negative, plus filtration to bring down the sky tone. On first glance one would surely think that a deep red filter had been used. This points to the fact that minimum exposure with the yellow, orange or red filters will increase the apparent effect of the filter on the sky tone. The cloud performs a useful space-filling function and is helpful in giving strength to the curving line which runs against it, but we could wish that it were more solid and more simple in outline so that its properties would be more in harmony with those of the principal subject.

Data: $2\frac{1}{4} \times 3\frac{1}{4}$ " Kodak 620 Monitor; Kodak Super XX, with K-2 filter; 16 x 20" print on Defender Velour Black I.

*"Oh Yeah!"*

Axel Bahnsen,
Yellow Springs, Ohio

♦ Mr. Bahnsen has caught a very telling expression in this picture, the head is nicely modeled and well placed in the picture space. Perhaps it is time to repeat what has been said before in these pages regarding placing when the head is large in relation to the picture space. There are two allied errors which continually re-occur in such pictures. Mr. Bahnsen avoids these so his picture affords a good example of how it should be done. The common errors are to get the eyes too low in the picture and to fail to provide a sufficient supporting mass below the chin. The result is awkward and gives the observer the uncomfortable feeling that the head has slipped downward in some unaccountable fashion. The unpleasant effect can be readily observed by covering the lower part of this picture.

Data: $15\frac{1}{2} \times 19\frac{1}{2}$ " print.

Fourth Award

Advanced Class

♦ This is a tremendously exciting cloud form. So much so, in fact, that it is strong enough to constitute a picture by itself. The idea of including a foreground object to act as a foil against the cloud form is certainly justified but we think a more simple form than the signal tower would be more suitable. Of course it was Mr. Essayan's intention to suggest the idea conveyed in his title by means of the signal tower ladder. We are inclined to doubt that many observers would get that connection through simply looking at the picture. It becomes plain enough once the title is read, but we believe it is bad strategy to count on the title to complete the idea. Most picture lovers never bother to read the title.

Data: Kodak Super XX, in DK-20; 16 x 20" print.



"Stairway to the Sky"

Ivan Essayan,
Altadena, Calif.

Fifth Award

Advanced Class

♦ Here is a type of portraiture which irritates some and intrigues others tremendously. It depends for the most part upon whether or not your imagination enjoys playing with the sort of illusive puzzle which such a picture presents. If one is not comfortable unless he feels sure that he fully understands and has the correct answer he will resent this sort of thing, for there is no absolute answer. There is only your personal interpretation; the only meaning is the meaning which your imagination distills from the juxtaposition of setting and subject. For example one might feel that this picture suggests a certain durability of character in the subject, or a quality of rugged masculinity. Quite obviously many other interpretations are possible. What we can understand about such pictures is that, in a sense, the suggestion is *deliberately illusive*. The primary effort is directed toward capturing and intriguing the observer's imagination. This of course is quite different from the more usual objectives of picture making where the artist attempts to convey a message or suggest an emotion with as much clarity as possible.

Data: 4 x 5" Speed Graphic; F:4.5 Zeiss Tessar lens; 1/100th sec., at F:16, on Defender XF Pan, in Kodak DK-60A; sunlight, no filter; 10½ x 13½" on Defender R-2 glossy, in Kodak D-72.



"Lester Horton"

Leo Salkin,
Hollywood, Calif.



"Fisherman's Morn"

M. I. Zimmerman, Relay, M.D.

First Award—Amateur Class

★ For some peculiar psychological reason the absolute peace and quiet of the early morning or late evening hours have a strong emotional appeal for almost everyone. Mr. Zimmerman presents such a mood very beautifully in this print. The picture is enhanced of course by the picturesque properties of the material and by the nicely placed accent of boat and figure. The arrangement is perfectly "correct" as presented, but there are two factors which cause us to feel that a more condensed version of the material will produce a stronger picture. Observe that the roof lines of the lower building on the left set up a directional movement toward the left. Quite obviously that is not desirable, since such movement carries the eye out of the picture. The stone jetty in the background has a slight tendency to lead the eye out to the right, but more important than that is the fact that its interest value is very slight so one is inclined to feel that the interest of the picture rather peters out in that area. We do not feel that either of the directional movements mentioned are strong enough to really carry the eye out of the picture, but they are elements which weaken the cohesiveness of the arrangement and since we can eliminate them without losing any desirable qualities it seems advisable to do so. If we trim in from the left until the low building on the left is eliminated and in from the right to the right edge of the further stone wharf we have a nicely proportioned vertical picture, with all the desirable qualities of the original version, but a much stronger composition because all weakening elements have been removed.

Data: $2\frac{1}{4} \times 2\frac{1}{4}$ " Super Ikonta B; 1/50th sec. at F:22, on Kodak Super XX in Agfa-17; K-2 filter; 14×16 " print on Defender Varigam DL, in D-55; blue toned in gold chloride.

Second Award

Amateur Class

★ Mr. Perry, through careful selection of camera angle and lighting has done a remarkably fine job of bringing out all the intrinsic beauty of this fine building and the lovely landscaping which surrounds it. The technical perfection of the print has a breath taking beauty all its own — a beauty that is uniquely photographic. Such prints are rare indeed and this fact supports our belief that the great majority of photographers do not appreciate or understand that this particular sort of beauty which can only be found in a fine photograph is perhaps the most important distinguishing characteristic of their medium. Most photographers need to raise their technical standards; need to learn to distinguish between a good adequate print and one which is absolutely right. There is a great though subtle difference between two such prints, and the unfortunate fact is that it is a difference of which far too many photographers are completely unaware.



*Mr. Perry,
Cleveland, Ohio*

Data: 11 x 14" print.

Third Award

Amateur Class

★ This picture brings us a vivid impression of the exhilarating delights of a romp in newly fallen snow. Snow texture is well rendered and the action in the little figure is nicely caught. To carry the argument advanced in the previous comment a step further we might add that this is a good print, far better than the average of good work, but it falls just short of the technical perfection which brings out the unique sort of photographic beauty that is so desirable. In this case the slight loss of quality is almost certainly due to too great an enlargement. The tendency toward larger and larger prints is an important factor among the various pressures which tend to take the edge off of photographic quality. The major contribution of the Purist School is their full appreciation of the importance of this quality to photographic beauty. They are not concerned with technique for technique's sake as so many seem to believe, but only because they realize that technical perfection is essential if the full beauty of photography is to be realized. That is why most purists refuse to make large prints.



*"Tumblebug"
Edward H. Gignac,
Dearborn, Mich.*

Data: Miniature Speed Graphic; 1/100 sec. at F:16 on S. S. Pan, with green filter; 14 x 17" print on Defender Velour Black JS.

Fourth Award

Amateur Class



"Coming of Spring"
Paul Kozak, Jr.,
Cleveland, Ohio

★ Mr. Kozak has made excellent use of the tree reflections and the curving bank of the brook to achieve a very pleasant picture. At first glance one might feel that there is some contradiction in the direction of movement. That is that the eye must choose whether to follow the brook or to move toward the bright area of snow in the upper left. We do not think that is truly the case however. Our eye follows the brook well over to the upper right and then swings to the left and back to repeat the movement. In fact the bright area in the upper left is essential to the picture for it exerts a pull which prevents the eye from following the brook too far and going out on the right. You can prove this to yourself by covering the top of the picture to a point just above the far bank of the brook. When that is done the eye will slip out on the right.

Data: Contax; 50 mm. Zeis Tessar; 1/50th sec. at F:5.6, on Agfa Finopan; 12½ x 16½" print; blue toned.

Fifth Award

Amateur Class



C. B. Phelps, Jr.
Grosse Pointe, Mich.

★ This print presents an interesting variety of textures and rather an intriguing arrangement of form. We feel that the area at the top containing the vertical members is unnecessary to the picture. It looks "tacked on" and consequently it would be better to trim from the top down to the point where the heavy beam above the door cuts the right edge of the print. It is unfortunate that the chickens in the doorway are so crowded together that they become confused with one another. It would be better to have only one chicken if it was impossible to rearrange them so that their structure would be clear.

Data: 9 x 12 cm. Voigtlander Bergheil; 13.5 cm. Voigtlander Heliar; 1/50th sec. at F:16, on Agfa Superpan Press in Agfa 17; 13½ x 16½" print on Defender Illustrro (glossy) in Kodak D-72.

Monthly Competitions

The Jury

John Paul Edwards, Fred S. Herrington, A.R.P.S., George Allen Young

Scoring for Club Trophy Cups

The following won points for their respective clubs in the Advanced Class: John Gibbs Holyoke, Harry E. Haworth and Ivan Essayan for the Pasadena "Y" Camera Club; Axel Bahnsen, for the Yellow Springs Camera Club.

The following won points for their respective clubs in the Amateur Class: M. I. Zimmerman, for the Camera Club of Maryland; Mr. Perry and Paul Kozak, Jr., for the Cleveland Photographic Society; Edward H. Gignac and C. B. Phelps, Jr., for the Detroit Camera Club.

Leo Salkin has not indicated any club affiliation.

Contributing Clubs

Calgary Photographic Society (Calgary, Alberta, Canada)	Kamera Kranks of Durham (Chico, Calif.)
California Camera Club (San Francisco, Calif.)	Pacific Camera Guild (Sacramento, Calif.)
Camera Club of Maryland (Baltimore, Maryland)	Pasadena "Y" Camera Club (Pasadena, Calif.)
Cleveland Photographic Society (Cleveland, Ohio)	Photographic Society of Hongkong (Hongkong, China)
Detroit Camera Club (Detroit, Michigan)	Photographic Society of San Francisco (Calif.)
Exeter Photographic Society (Exeter, Calif.)	Studio Camera Club (Sacramento, Calif.)
Gemmy Photographic Society (Hongkong, China)	Yellow Springs Camera Club (Yellow Springs, Ohio)

Standing of Clubs

Large Clubs -Advanced Class

Pasadena "Y" Camera Club.....	36
Fort Dearborn Camera Club.....	29
California Camera Club.....	17
Manhattan Camera Club.....	5

Small Clubs -Advanced Class

Photographic Society of Hong Kong ..	20
Yellow Springs Camera Club.....	15
E. P. I. C. Pool.....	4
Rothschild Camera Clinic.....	4
Palo Alto Camera Club	3
Alameda Photographic Society.....	2
Arenac Camera Club.....	2
Kamera Kranks	1

Large Clubs—Amateur Class

Detroit Camera Club.....	38
Cleveland Photographic Society.....	30
California Camera Club.....	17
Miniature Camera Club of New York.....	17
Photographic Society of San Francisco.....	11
Amherst Camera Club.....	5

Small Clubs—Amateur Class

Camera Club of Maryland.....	11
Kamera Kranks	8
Dallas Pictorialists	4
Tulare Camera Club.....	4
Greenville Photographic Society.....	3
Women's Photographic Society of Cleveland ..	2

SUMMARY OF COMPETITION RULES

1. Open to all, amateur or professional, club member or non-club member.
2. Closing date 1st of each month.
3. Indicate class of entry (Advanced or Amateur) and club membership (if any) on back of each print. Technical data should accompany each print.
4. No entry fees or blanks required.
5. Stamps must be enclosed for return of prints.
6. Full explanation will be sent free on request or may be seen on page 47 of January 1941 issue.

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Zeiss Universal Revolving Finder	50
Contax f:2, case and extras	160
Leica 135 mm. Telefoto lens	90
B & H Dou. 8, f:3.5 and case	35
B & H Magazine No. 141, f:1.9, new	110
Contaflex f:1.5 with 85 mm. Telefoto	275
Leica G f:2 and case	140
6.5x9 Berghell f:3.5 Heliar	65
Turner-Reich Convertible Lens	65
Primarflex with 4" Zeiss Tessars	110

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CAMERA CRAFT PUBLISHING CO.

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(Continued from page 651)
the abstract. Is there any great need worry about trends?

Sincerely,

C. Stanton Loebe

San Francisco, Calif.

About Titles

Dear Sirs:

Page 590 of Camera Craft for October 1937 carries a reproduction of a photograph titled "Twilight Etching." The magazine seems to credit it with having been hung in the "Second Annual North American Salon." I do not know the "Second Annual North American Salon." I do not know its judge. But I have to say a man has a highly mitigated gall and a very obtuse egotism to set himself up as a judge and critic of Pictorial Photography and pass this effort for hanging.

How can he do this thing? If he is offered as a subject, a beautifully photographed bowl of spinach and it is titled "Strawberries in May" would he pass it? I have not yet been contradicted of the idea that on an object is titled, it is, or represents, a title. In this picture, titled "Twilight Etching," everything in it screams at the ears of its voice that the shot was made within an hour of high noon. That being the case it fails to represent twilight, which is an entirely different lighting. And if this does not represent twilight, as stated in the title how can the judge pass it?

I have no argument with Shirley Hall (or she) can make this picture and call it "Twilight Etching" or anything else and he (or she) gets it hung, he (or she) laughs up the royal sleeve at the judges and ALL his (or her) competitors.

This is a beautiful picture, and up to time it was titled "Twilight Etching" serves exhibition, but with that title surely is a poor result.

Thank you for listenin'.

Sincerely yours,

Walter W. Weber

Mansfield, Ohio.

P.S.—I had not entries in this show!

Do readers agree?—Ed.

Club Notes

Announcements

The Photographic Society of America announced the second group of honors which will be conferred on the following at the Seventh Annual Banquet on the evening of October 25th.

HONORARY MEMBER

Major Frank Liuni, Monroe, North Carolina

FELLOWS

Joseph M. Bing, New York, N. Y.

Edward P. McMurtry, Pasadena, Calif.

Fred Peel, Philadelphia, Pa.


Valentino Sarra, Chicago, Ill.

* This Honor was unanimously voted by the Board but was declined by President Liuni.

(Continued from page 697)

CAMERA CRAFT

Wollensak means Good Lenses



"Sunday Afternoon" by Clayton E. Wall, professional photographer of Dayton, Ohio. While teaching photography and making educational motion pictures at the University of Minnesota. Mr. Wall made this unusual and pleasing character study. The lens a 6" focus $f/4.5$ Wollensak Velostigmat. Clayton Wall writes "For many years I have used Wollensak lenses both in cameras and enlargers. I recommend them for excellent results."

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(Continued from page 694)

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Notes and Comments

New Products

The new Wescos Slide Files, introduced by Western Movie Supply Co., of Hollywood and San Francisco, Calif., offer the maximum attractive, durable protection for your slides. Two styles are offered: The De Luxe Library Series unit of 3 volumes holds 300 slides and fits neatly into an attractive carrying case; while the Standard holds 100 slides and includes a numbered index mounted on the cover. Ask your dealer to see the Wescos Slide Files.

The amateur and advance photographic worker, sooner or later, aspires to own a press type of camera, because of the flexibility, ease of handling—and the adaptability of such an instrument to successful picture making under a wide range of conditions. Such a camera is now being manufactured and offered by Burke & James, Inc. known as the Watson 2½x3½ inch Miniature Press Camera. Actually it is a small edition of the larger types of press cameras, with all of their well known adjustments. It is designed to accommodate all standard press accessories, such as flashgun, range finder, etc. Its telescopic eye level view finder is adjustable for correction of parallax in closeups. The ground glass focusing wheel is fitted with a folding hood that shields all four sides from unwanted back light. The double extension bellows travel on an all metal V-grooved track that provides remarkable rigidity. Removable lensboards permit the use of lenses of various focal lengths. The precision design and construction of the camera will appeal to the advanced worker—and, last but not least, is at remarkably low price at which this fine camera is offered! Complete descriptive literature may be obtained from the manufacturer, Burke & James, Inc., 223 W. Madison Street, Chicago.

(Continued on page 699)

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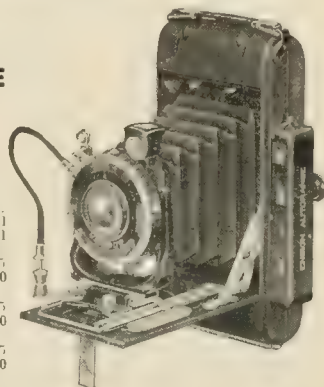
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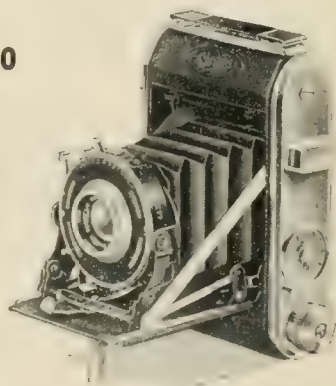
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CAMERA CRAFT

(Continued on page 697)

The Super D Graflex, previewed by August conventionaires during the Trade Show in Chicago, features re-styled controls with chromium and black finish, plus a new and exclusive feature—built-in open-flash synchronization. Used with a Graflex Flashing Unit and lamps of the SM type, exposures in the neighborhood of 1/200 second are secured that are more adequate for child portraits and most action pictures. And, thanks to the safety circuit, the lamp will not ignite unless the release lever that makes the picture is deliberately pressed down. With a 6½" Kodak Anastigmat f/4.5 the Super D Graflex is priced at \$141. Adding this new independence of lighting to the long-recognized advantages of parallax-free, ground-glass focusing and an erect image the full size of the negative, makes the Super D Graflex an even more valuable camera for all-around photography than its popular predecessor Series D.

Again Agfa Ansco offers an outstanding line of attractive holiday greeting-card materials that will be of particular interest to the amateur photographers who make their personal Christmas cards.

Greeting Card Outfit 1A contains four different film masks of extremely attractive design and special, new stencilling materials for reproducing the user's signature on the cards photographically—with complete instructions for use. The masks are 5x7" overall and are proportioned to use paper of the standard 4¼x5½" greeting-card size. Three of the masks contain cut-out openings of 2x3" to take negatives with a vertical format, and the remaining mask takes horizontal negatives. The 1A Greeting Card Outfit is obtainable through regular photographic dealers at \$1.25 each. Three especially designed masks, which sell separately at 65c list each, are available to accommodate various-size negatives. A special surface of Agfa paper, known as Greeting Card Special, is provided for use in making greeting cards. This paper is priced the same as Ansco double weight and is supplied in our grades of contrast in deckled 4¼x5½" size. White vellum envelopes, either lined or unlined, are also available. These envelopes make an attractive combination when used with photographic Christmas cards and list at the following prices: Unlined—25 for 20c, 50 for 75c, 500 for \$2.65; lined—25 for 30c, 50 for \$1.15, 500 for \$4.15.

"Signal," the Indicating Shortstop, is a revolutionary new photographic solution announced by Mansfield Photo Research Laboratories. This new shortstop, which is colorless when fresh, turns a bright, rosy red when exhausted. The use of "Signal" makes it possible to avoid the disappointing results—the stained and ruined prints—caused by a worn-out stop bath. Each 16 ounce bottle of "Signal" Shortstop makes 20 one-pint baths. Each bath may be used until the red danger signal appears, thus assuring full use of the solution. "Signal" is suitable for plates and film as well as for all photographic papers. It is a stable solution that keeps equally well in concentrated or diluted form without deterioration. The 16 ounce, screw cap bottle retails for 45c.

(Continued on page 701)

OVEMBER, 1941

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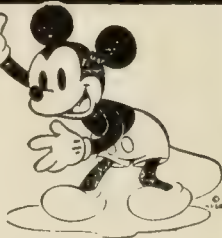
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3 Basic Types Fit Any Situation

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- Complete details on the materials to use and PRICES so that you may accurately estimate your costs.
- Complete information on the construction of darkroom accessories of all kinds.
- And so we could go on . . . but it is the authors that make this book so unique and valuable. Mr. Barrett is a practicing photographer and an experienced instructor in this field. Mr. Wyckoff is an experienced architect who brings to darkroom construction, for the first time, those architectural developments that have revolutionized home building and created the "machine for living." Applying these principles to the darkroom has brought you the perfect "machine for working."

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TABLE OF CONTENTS

BASIC CONSIDERATIONS. Work to be done in the darkroom . . . problems and pointers.
FLOORS, WALLS AND CEILING. Why prices and trade names are given . . . darkroom size . . . floors, mixing and laying concrete . . . floor coverings, materials and comparative costs . . . walls, erecting studding, materials, door and window construction . . . insulation . . . painting . . . the problem of the damp basement.
VENTILATION. Air without light . . . without dust . . . heating.
DARKROOM LIGHTING. Why lighting is important . . . fluorescent lighting . . . wall plugs, a continuous outlet system . . . wiring and switches.
SINKS, DRAINAGE AND WATER SUPPLY. Plumbing considerations . . . kinds of sinks, comparison, costs, etc. . . waterproofing . . . acid-proofing . . . drainage, the problem in the basement.
AN APARTMENT DARKROOM. A portable, self-contained unit . . . used over standard bathtub . . . construction, etc.
A BUILT-IN DARKROOM. A basic plan . . . explanation of arrangement . . . shelves, drawers, cupboards, etc.
A De-LUXE PHOTOGRAPHIC INSTALLATION. For still and motion picture . . . the movie room . . . a miniature auditorium . . . screens, relative brightness, care and handling
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Announcements

This month, as the New York Institute of Photography celebrates its 31st anniversary, Samuel F. Falk, President, is quietly celebrating his 25th year as its head.

"The one thing that makes me happiest," said Mr. Falk to an interviewer recently, "is that I am credited with having supervised the training of more successful photographers than any man in America."

In his office at 10 West 33rd St., across from the Empire State Building, where the New York Institute is located, Mr. Falk seemed back in a reminiscent mood. "Now let me make the mistake of asking me to look back and grow wistful over the good old days in photography. I assure you that the good old days are here RIGHT NOW."

Compared with our method of individual instruction, there wasn't much good about the old days when it took YEARS to become a photographer by the drudgery and uncertainty of apprenticeship. Now, at N.Y.I., with its 16,000 square feet of modern studios in air-cooled laboratories and darkrooms with the finest of equipment and the full staff of experts on the faculty—it's a matter of months before a student is qualified for profitable photography."

If you are considering buying a slide projector that will show your Kodachromes to best advantage, you will find the S.V.E. Projectors offer many advantages. The Society of Visual Education has a complete line of projectors for slides or film strips and also manufactures the S.V.E. Glowwhite Screens. See your dealer or write for descriptive material to the Society of Visual Education, Inc., Dept. 11CC, 100 East Ohio St., Chicago, Ill.

Unknown to many of our readers, Jerry Sands, Manager at Baxter's Camera Shop, 70 Post Street, San Francisco, is also a Magician and a member of several Magic Men's Societies. At the request of many of his friends and acquaintances he is starting a magic shop at 68 Post Street, in conjunction with Robert Stull, a San Francisco manufacturer and inventor of magical apparatus, well known on the Pacific Coast. The new shop will be known as the San Francisco Magic Studio and will carry a complete line of apparatus for performing magicians as well as novelties and tricks of interest to those who want to entertain their friends at home, parties or other gatherings. If you want a clever stunt at your next party, drop in and see Jerry or Bob. Maybe they can help you pull a rabbit out of the hat or show you something different to pep up your party.

Lugene, Inc., of New York City have just moved to their new building at 604 Madison Avenue. Attractively modern in design, the new quarters are designed to give the maximum in efficient service. Walter A. Blocker, President of Lugene, Inc., invites you to drop in and see the new features of the store which include a projection room for the cine photographer and an up-to-the-minute darkroom for the still photographer.

Suggestions for Every Camera Man including Yourself

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2 1/2x2 1/4 Kodak 1 F3.5 Noval Compur	72.00
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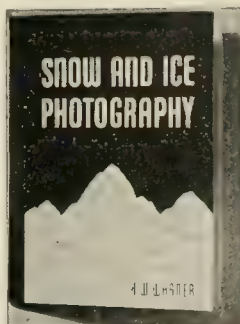
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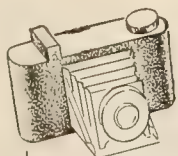
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STATEMENT OF OWNERSHIP, MANAGEMENT, ETC., OF CAMERA CRAFT

Statement of the ownership, management, publication, etc., required by the Act of Congress, August 24th, 1912, for October 1st, 1941, "Camera Craft," published monthly at San Francisco, State of California, county of San Francisco.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared Ida M. Reed, who having been duly sworn according to law, deposes and says that she is the Business Manager of "Camera Craft" and that the following is to the best of her knowledge and belief true statement of the ownership, management, etc., of the aforesaid publication for the month shown in the above caption, required by the Act of August 24th, 1912, embodied in Section 1103 of the Postal Laws and Regulations, printed on the reverse of this form, to-wit:

Publisher: Camera Craft Publishing Company, San Francisco, California; Editor, George A. Young, of San Francisco, California; Business Manager, Ida M. Reed, San Francisco, California. That the owners are Camera Craft Publishing Company, San Francisco, California; Ida M. Reed, San Francisco, California.

That the known bondholders, mortgagees and other security holders owning or holding 1 percent or more of the total amount of bonds, mortgages, or other securities are E. J. Cardinal, San Francisco, California.

(Signed) IDA M. REED, Bus. Mgr.

Sworn and subscribed before me this 1st day of October, 1941.

E. J. CASEY, Notary Public

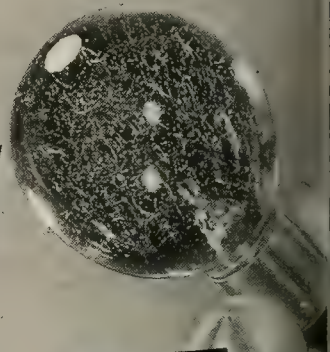
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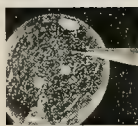
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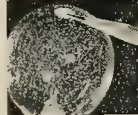
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WABASH

SUPERFLASH AND SUPERFLOOD

CAMERA CRAFT

A Photographic Monthly

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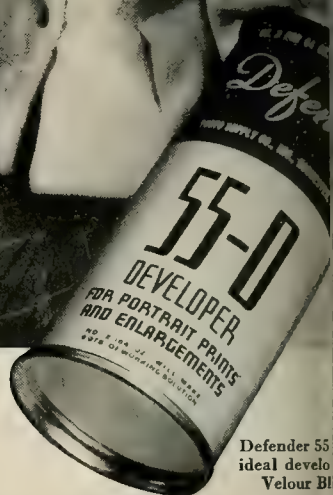
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What Is Pictorialism?

Mr. Sirs:

I am an ardent amateur of photography, it is with no little amazement that I read, from time to time, arguments based on arguments similar in their contention to those of Mr. Barrett and Miss Newhall, in the two issues of Camera Craft.

In her article Miss Newhall, in her denunciation of manipulative processes, is either unconsciously or deliberately upholding the arguments of the Purist School. On the other hand, Mr. Barrett is equally vehement in his desire for beauty in photography, regardless of the means of obtaining it. Unfortunately, there were no prints of her contender published, no concrete example on which the reader might base his judgment of the writers' theories.

Always, exponents of both sides strive dutifully to regiment photographers into their concepts of the art, when there is room for both in different fields. So why all this trust and argument?

Photography is an art but it is also a means of expression for many people too, either or not they have any feeling for their beauty. Photography is an instrument in the hands of a creator; it is a means of livelihood for others in purely commercial work and, finally, it is a toy in the hands of the Sunday tripper. Therefore, it runs the gamut of expression between well-planned, well-executed pictures with a lasting meaning and charm and those shot at random for the fun of taking pictures, having no more going interest than the daily newspaper. For that reason it would be well for a writer at the outset of his article, to state upon which field of photography he is commenting for rules which apply to one group are not applicable to another.

It is not hard to see the above-mentioned writers' viewpoints but it is difficult to see why each one's blanket theory of photography covers all the specialized fields of that medium. The old saying, "One man's meat is another man's poison," seems to fit photography equally well. For example, a picture of a woman's face, with every pore and blush clearly but cruelly defined might be of definite value to a dermatologist but would be quite distasteful and most depressing to the sitter, as a portrait. By the same token, a sharp, glossy picture of the delicate mechanism of a Swiss watch would be mutually preferred to one which had been blurred or manipulated in any manner.

Let us assume, then, that both writers are addressing the salon, or would-be salon, group. If photography is an art, then we must grant that it is highly individualized. Let us assume, then, that two people, given the same assignment of subject matter, would produce pictures very similar, which, of course, is not the case. It is that very individual concept and execution behind each

(Continued on page 715)

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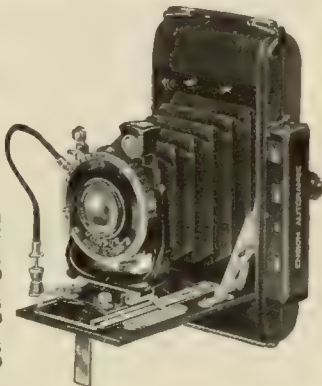
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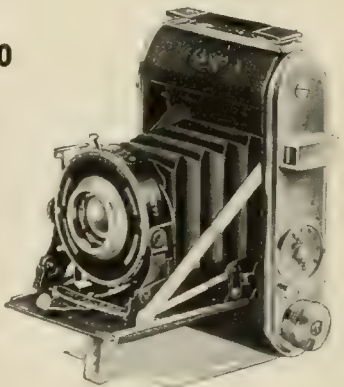
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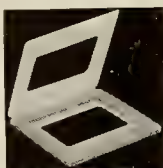


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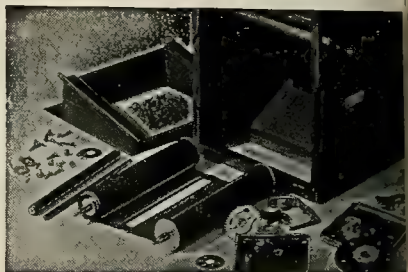
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(Continued from page 713)

picture that lifts photography out of the sciences into the arts. In photographing the same model at the same time, two photographers will get entirely different pictures, from the standpoint of lighting, camera angle, pose, mood, etc. By what standard is the "best" one judged? By the technical excellence of the print or by the emotional reaction of the beholder?

Miss Newhall did not mention what particular manipulative processes she so resents. What about dodging, burning-in, intensification, toning, etc.? Are not these manipulative processes, too? Where is the limit to be drawn? If the photographer has the ability to improve a print, either by negative or print retouching, chemical processes, etc., must he renounce it in order to fit himself into the groove drawn by those who have not that ability and in whose attitude of condemnation of all manipulative processes there is no little hint of "sour grapes?"

Both these writers are correct when they say that photography is changing and advancing and yet they are diametrically opposed as to the means of achieving that change. So which one is right? How is the bearded amateur to advance if he is told, on the one hand, to use any process he is capable of using to enhance the beauty of his print and, on the other hand, denounced for doing so? Does it not simmer down to hold Aesop's fable of "The Father and the Donkey," i.e., "Please yourself if you please everybody?"

After all, when all is said and done, isn't the effect the picture has on the beholder what really counts, and not how the photographer achieved that effect? Because Rembrandt painted differently from Rembrandt didn't uphold one and berate the other. The result is the same—beauty—and we do not how it was achieved. At any rate, let us strive for less generalization and imitation and more individuality!

Sincerely Yours,

VIRGINIA WINTER GRENZBACH.

Los Angeles, Calif.

S.—Please allow me to take this opportunity to compliment the editors of Camera for their fine publication. They are to be commended on keeping it on such a high artistic level, as each issue is not only instructive but, what is more important, inspirational.

About Titles

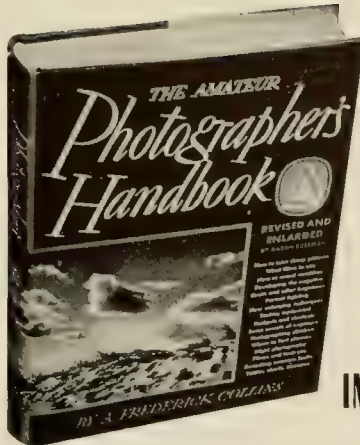
Dear Sirs:

I was interested in the letter of Walter W. Miller in your November edition. He protested with what amounted to bitterness at what he called the mis-titling of a photograph in the Sacramento salon.

The photograph may have been mis-named but I do not think that is enough to bar it from the salon. Charles S. Martz, one of the trustees of the Photographic Society's salon in Chicago, said in an article about that judgment that his group of judges did not read a title but ran through the prints at from four to eight per minute. In that salon the titles were not important and perhaps they were not in Sacramento.

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Alva Tofanelli, Antioch, Calif.

First Award

*1st Annual West of the Rockies Salon
San Francisco Museum of Art*

In Defense Of Progressive Photography

John Gibbs Holyoke

Dear Mr. Young:

I hope you will be able to use the article which accompanies this letter. The policy of your magazine, it has seemed to me, has been definitely one of tolerance and fair play: you have on a number of occasions promoted open discussions of topics which fell under the heading of "controversial."

In submitting this article, I am presenting a personal viewpoint of the subject, but probably large numbers of your readers can at least partially agree with me. However, there will be, I am sure, large numbers who disagree.

I hope, therefore, that if you should use my article, you will persuade some pictorialist of the opposite school to write an answer to it. The two articles would surely arouse a very valuable discussion of a very pertinent topic and all of us camera fanatics who form your large body of readers would be the beneficiaries!*

Yours very sincerely,

JOHN GIBBS HOLYOKE.

IN AN excellent article in the October, 1941, issue of CAMERA CRAFT, Nestor Barrett pointed out the great revolution which is occurring in the philosophy of American art. In his "Photography: What Now?" Mr. Barrett systematically and convincingly showed that we are passing from an outlook of muckraking pessimism to one of optimistic unity.

But then, becoming more definite, he called upon the future Weston or Brady to desert "the harsh, glossy print" for the "more enriching experiences awaiting them in the manipulative branches of the art," namely,

* The following article by William Mortensen is written in reply to Mr. Holyoke.—Ed.

bromoil and paper negative. We can all agree with Mr. Barrett on his major thesis but in this question of the proper *technique* some of us will be found in the ranks of the loyal opposition.

For the purposes of discussion we shall divide all pictorial photography into two divergent schools: the Arty Photographers and the Photo-artists. Our first group suffers from a noticeable inferiority complex; its members actually have no confidence that photography can stand on its own merits as a separate art. So the Arty Photographers, fearing the catcalls of the painters, the etchers and the sketchers, devote their chief efforts to disguising their masterpieces to resemble other art technique! Year in and year out, they labor mightily with bromoil and paper negative to destroy all evidence of true photographic quality in their prints, to blot out disturbing elements which might better have been eliminated with the camera viewfinder, and to draw and redraw the picture until it hardly seems to be more than a sixth cousin of a contact print from the original negative.

The Photo-artists, on the other hand, suffer from no such complex. They are proud of the field in which they are working; they believe that photography definitely has some advantages possessed by none of the other major arts. They are unwilling to sacrifice these gains to a slavish imitation of the older realms of creative endeavor. Some work with rich, aristocratic fresson or carbo prints; some work with conservative, substantial matte surfaced chloride or chloro-bromide; some work with brilliant semi-matte or glossy. All, however, unite in the belief that photography is truly worthy of a place in the sun.

This basic unity within the Photo-artists' group does not prevent its members from varying widely in preference of subject matter and in method of presentation. Usually, the artists who prefer carbo prints or a matte surfaced paper are quite conservative in taste, whereas the users of a semi-matte or of a glossy surfaced paper are more inclined to be progressive in their general outlook. As the conservatives are seldom under fire from the Arty Photographers, we shall devote the remainder of this article to a brief defense of the often assailed progressives.

The use of bromoil or paper negatives imposes a limit upon the subject matter of a photograph; the employment of semi-matte or glossy does not necessarily do so. It is self evident that the first two mediums mentioned cannot be used in the portrayal of so-called "harsh realism," because they simply are not able to carry the fine detail and crystal clarity for which the material usually calls. Basic technical limitations thus force the users of these processes to select subjects in which image sharpness will not be missed. The photographer is pushed willy-nilly into the "romantic" school.

With semi-matte and glossy, on the contrary, the capable artist is able to control positively the amount of detail shown. He may present everything with needle sharpness, or he may choose to diffuse so as to subordinate texture. The amount of diffusion can be made to vary from an almost imperceptible amount all the way down the range to a very obvious softness. Occasionally, one sees in some salon a rustic scene very beautifully done in soft focus and printed on glossy paper; a print of this type carries through



*"Church on the Road to
Sleepy Hollow, Orinda"*

*Meidel Applegate,
Berkeley, Calif.*

Second Award

1st Annual West of the Rockies Salon

San Francisco Museum of Art



"Shore Pattern, Point Lobos"

Robert Ingram, Oakland, Calif.

*1st Annual West of the Rockies Salon
San Francisco Museum of Art*

the romantic viewpoint with a strange, fascinating brilliance which can hardly be duplicated in any other fashion.

But Mr. Barrett's "more romantic mood of the future" should not necessarily call for the complete abandonment of the sharp focus glossy. Take a picture of a tall sycamore tree standing boldly against a bank of gloomy storm clouds; surely a clear, rich, long-toned glossy will be just as "romantic" and powerfully effective as some vague, hand drawn bromoil! And even though we can concede a general trend towards nostalgic sentimentalism, we ought to save at least some small corner of our salons and exhibitions for the beauty which can be found in pattern and in texture.

Both bromoil and paper negative possess the supposed advantage that the subject matter can be so worked over and drastically modified that it finally shows little, if any, resemblance to the original; this is the "more enriching experience" to which Mr. Barrett refers. Sometimes we wonder if those who seek this enrichment so persistently would not feel even more at home if they turned to painting with oils.



"San Ildefonso Indians"

Alma Lavenson, Piedmont, Calif.

1st Annual West of the Rockies Salon

San Francisco Museum of Art



"Hotaling Place"

Samuel O. Hoffman, San Francisco, Calif.

*1st Annual West of the Rockies Salon
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After all, those who wish some "control" over their final prints need not desert semi-matte and glossy for processes which are quaint old relics of the very early years of this century. For minor flaws, we find retouching on the negative and spotting on the print are not entirely lost arts. For more drastic control, we can employ all the various methods of "dodging" during enlargement and the even more fascinating technique of double-printing. The most radical form of control is, of course, the painstaking paste-up and copy job; some craftsmen are able to obtain such perfect copy negatives that there is no apparent loss of print quality whatsoever.

We agree with the prophets that the trend is definitely away from muck-raking. We deny, however, that realism itself is on the way out. In the future, as in the present, there will always be an honored place for clarity, honest vision and the brilliance of the long-scaled glossy print. In a world in which the spirit of cooperative progress will be only temporarily restrained by this present war, we must strive to protect the technical and aesthetic achievements which are the culmination of a century of photography.

The Cart And The Horse

William Mortensen

The Ditherings of An Unregenerate Romantic

IT would appear, from the trend of articles appearing in CAMERA CRAFT and other journals, that photography is now undergoing its biennial period of stock-taking and soul-searching. It is a very good thing that we should do this once in a while and settle momentarily and to our own satisfaction the how and the why and the so-what of our chosen medium. For having gotten these matters off our chest, we can return with added gusto to our own proper photographic concerns.

Nestor Barrett, in an article a few months ago, voiced his pleasure (which I heartily second) in the fact that photography seemed to be recovering from its recent morbid preoccupation with the grim, the grubby and the sordid. Mr. Holyoke expresses guarded agreement with Mr. Barrett, but ventures to hope that we will "save a corner of our salons" for the brilliance and clarity of the glossy print.

Now, I would not differ with Mr. Holyoke's principal contention at all. We certainly *should* give the fullest consideration to the unique virtues of the glossy print. BUT—from this irreproachable beginning, he goes on to say some very odd things about processes—statements that betray bias rather than reasoned judgment. Proceeding on the reliable formula of

"give a dog a bad name . . . etc.," he tags processes with a variety of prejudicial adjectives and forthwith praises or damns them on that basis. Glossy prints, for example, are "clear," "rich," "progressive." Carbro and fresson are "rich, aristocratic." Matte surfaces are "conservative, substantial." But bromoil, alas, is "vague, hand-drawn."

The use of such terms, indeed, makes me wonder whether Mr. Holyoke is really familiar with good original examples of all these processes which he so glibly put in their places. It is an unfortunate habit of most of us—a habit to which I have succumbed on occasion—to judge unfamiliar processes on the basis of their worst examples, or even flimsier evidence. In these days of many photographic journals, we are apt to leap to conclusions about pictures and photographers that we have known only through the medium of half-tone reproductions. This is much as though someone unfamiliar with Shakespeare should judge his quality in a version that had been re-translated from the Japanese. Such procedure might conceivably reproduce some of the principal contours of the stories and characters, but certainly none of the true quality of the original.

I am aware that in coming to the defense of bromoil and in confessing that I even practice the horrid process, I put myself in the category that Mr. Holyoke has somewhat unkindly designated the "Arty Photographers." I accept the classification, for it at least concedes (which is more than some of our critics do) that we *are* photographers.

A great deal of so-called critical comment on bromoil and other photographic processes is largely colored by two fallacious assumptions—assumptions sometimes apparently wilful and sometimes merely ignorant.

Fallacy No. 1: That "processes" exist merely for the sake of corrupting the virginal purity of photography. The use of such terms as "vague" and "hand-drawn" and the expressed imputation that bromoil workers "labor to destroy all evidence of true photographic quality" all seem to show that Mr. Holyoke has never seen a really good example of bromoil or transfer.

To be sure there are things described as "bromoil" or "bromoil transfers" which sometimes appear in salons, things which look as though they had been inked with a whisk broom and transferred by stepping on them. But these objects are no more indicative of the real quality of bromoil than a "professional glossy" at \$6.00 a dozen is a true criterion of what Weston can do with a glossy surfaced print.

Bromoil and bromoil transfer is an arduous and expensive process and there are very few competent to practice it. So it is entirely possible for Mr. Holyoke to have been to a good many salons and still never to have seen a good original example. Good bromoils lose nothing of the essential photographic quality, but add to it a soft luminosity and quiet charm that must be seen and handled to be appreciated. A bromoil which is actually "vague" and hand-drawn" is simply a very bad and untypical example.

This brings us to Fallacy No. 2: That users of processes (the "arty photographers") strive to imitate painting. It is true, no doubt, that a few misguided efforts have been made at direct imitation of painting, but these



"Early Morning"

George Dumbaugh, Pasadena, Calif.

1st Annual West of the Rockies Salon

San Francisco Museum of Art

are in no wise typical. What we "arty photographers" have concerned ourselves with have been matters of common interest to *all* the graphic arts—mass, line, arrangement, tonal balance. We think that the *picture itself* is perhaps a little more important than the process that is used. Herein the arty photographers would seem to have higher respect for photography than some of the so-called progressives; for the former are confident that their medium is capable of dealing with matters of more moment than mere surface and texture.

I believe that there is a tendency to put altogether too much emphasis on "processes" as such. The "progressives," impressed with their modernity, exhort us to give up "processes which are quaint old relics of the very early years of this century." Thus does Junior condescend to give grandfather the lowdown on the facts of life. It is necessary to remind the progressives that their beloved glossy print is basically just another "process," possibly not "quaint," but certainly older than bromoil and some other processes practiced by us funny old Romantics.

Mr. Holyoke's plaintive protest that those who practice bromoil are "thrust willy-nilly into the romantic school" does not stir one to deep sympathy with the misguided person who finds himself in this unhappy predicament. Bromoil has never been advocated as a medium for hard realistic presentation, and it is difficult to imagine anyone undertaking it with this end in view. One might as well protest that practicing the violin thrust one "willy-nilly" into playing violin music.

In thinking about processes and their applications, we must be careful not to put the cart before the horse. Misonne is not "limited" to his particular outlook because of the oil process which he uses: rather, he uses it because it happens to best express the things that he best likes. Similarly Weston, I am sure, feels no limitations in the medium that he uses. Glossy prints and small apertures best express the static patterns that he finds most significant.

* * * * *

"Progressive photography" in the true sense of the word needs no "defense." Photography has been progressing very satisfactorily for the last hundred years, and will no doubt continue to do so. Nothing that we can say about it can either impede or hasten its continued progress. So I suggest that we now adjourn to our darkrooms and again devote ourselves to making pictures and to presenting them in the most effective way that we know—no matter whether it is a glossy print, a bromoil, or a bichromated mustard plaster.



"Oh!"

Seymour W. Snaer, Berkeley, Calif.

1st Annual West of the Rockies Salon

San Francisco Museum of Art

Mad Dogs, Englishmen

And Outdoor Portraits

Fred S. Herrington, A.R.P.S., P.S.A.

ACCORDING to the lyrics of a currently popular song, "mad dogs and Englishmen go out in the midday sun;" but if your aim is portraiture, leave the sunlight to the English and their canine companions and make your outdoor pictures elsewhere.

Many factors are involved in the making of a satisfactory outdoor portrait suitable for salon competition. In order to win medals and influence judges, a portrait must have subject-matter appeal, mood, natural and convincing facial expression, print quality, composition, etc.; but, more than anything, in the opinion of this writer it should have that quality of modeling which gives to the subject's face and head the appearance of *actual form and roundness*, as realistic to the onlooker as though it were modeled in clay or sculptured in marble instead of being merely depicted in the photographic media of but two dimensions. This effect of the third dimension can be attained only through proper lighting.

While lighting, even though it be perfect, cannot in and of itself make a successful portrait, inadequate or faulty lighting can certainly ruin one. Therefore, it behooves the portrait-minded photographer to carefully analyze and evaluate the various types of lighting available for portraiture out-of-doors; and this is the object of the following discussion.

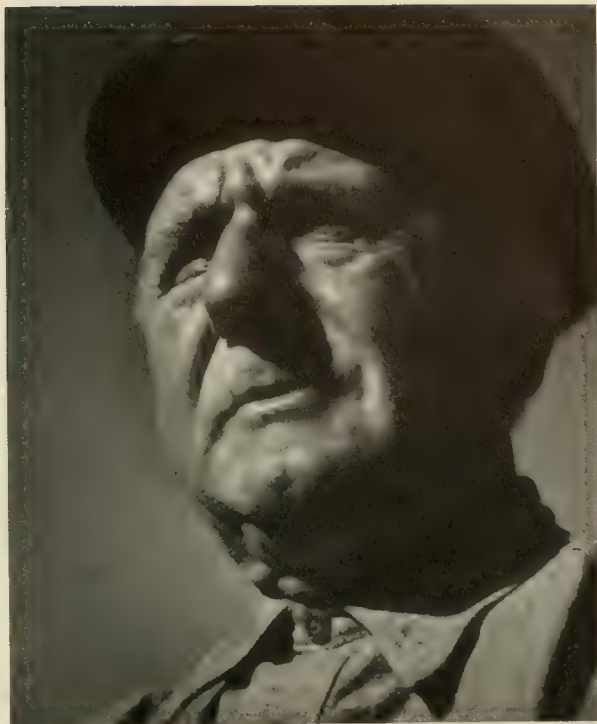
Portraits made in direct sunlight are typified by dense, black shadows and chalky highlights—"chalk and soot, as we say." Both shadows and highlights lack that textural quality needed for a speaking likeness. (See "Old Salt.")

Not only will the texture of skin, hair and clothing be inadequate but another essential quality will also be missed, namely, modeling or "roundness." The head and face in a portrait will have third dimensional roundness only when the flesh tones graduate from the highlights into the shaded

"Old Salt"

Fred S. Herrington,

A.R.P.S.



Example of a portrait made in direct sunlight. Note heavy shadows and loss of detail in the recesses of the eye. Compare with other portraits accompanying this article, all of which were made in the shade with directional light from the sky.

areas through progressive *half-tones*. As a general rule, direct sunlight is much too strong and "contrasty" to allow a good photographic rendition of the essential middle tones.

With direct sunlight ruled out as a light source, let us examine the other extreme. In other words, must we wait for a cloudy or overcast sky for our outdoor portraits? Further analysis of the problem will indicate that this last query must be answered in the negative.

In fact, the light is much too soft and diffused on an overcast or cloudy day to enable us to obtain the desired pictorial results. In order to secure form and texture we need *highlights* as well as half-tones and shadows; and there are no really adequate highlights visible on a "gray" day.

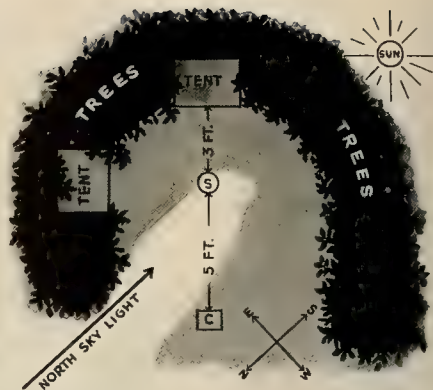
What, then, must we look for in the way of lighting possibilities? The writer's own experience would indicate that satisfactory lighting can be achieved under the conditions hereinafter discussed and as depicted in the accompanying diagrams.

Choose a bright, sunny day, and look for a location to serve as an outdoor studio, where the subject may be posed in the shade, facing toward the open sky. In other words, allow the blue sky overhead to serve as the chief source of illumination. If you are inclined to doubt the efficiency of the sky *itself* as a light source, then try taking a reading with your exposure meter on a patch of open sky. Be sure to stand in the shade while taking this reading. If you have not tried this, I venture you will be greatly surprised at the strength of the light emanating from the sky.

This "sky light," if I may term it such, is brilliant and directional



Elevation



Ground Plan

The Outdoor Studio

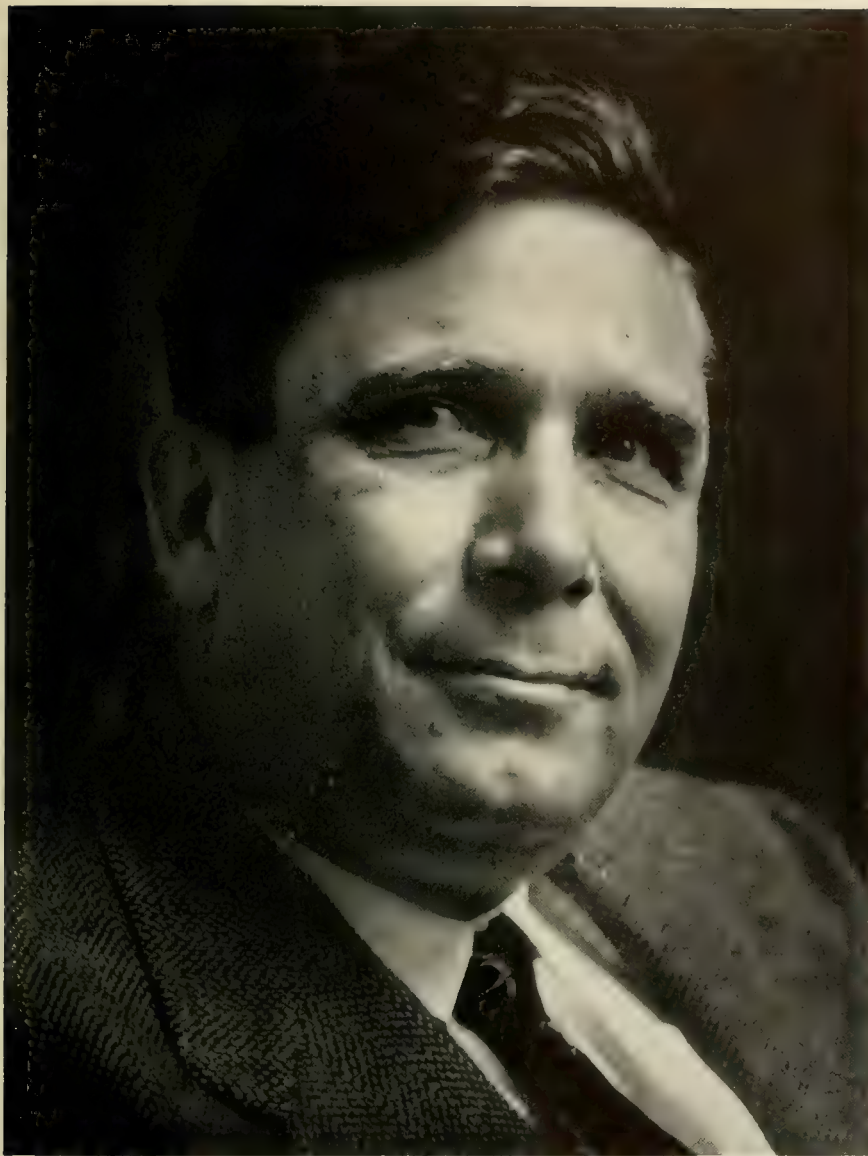
and hence furnishes beautiful highlights and perfect modeling. It gives "punch" without undue contrast; and the range of tones from highlights to shadows will be found to lie well within the limitations of our photographic materials, both films and papers.

By posing our subject in the shade, we secure that luminosity in the shadows which can be carried over into the final print, enabling the portrait to retain a full measure of texture throughout. In using your exposure meter, follow the old rule of exposing for the shadows.

If we were to scientifically obtain readings of the various kinds of illumination available out-of-doors, ranging from the dim light encountered in a dense forest on a cloudy day, as one extreme, to direct sunlight as the other extreme, and if we were then to plot such readings, we would undoubtedly obtain a gradual curve of ascending values. We would then observe that a relatively small segment somewhere near the middle of this curve would represent the range of light values extending from the luminous shadows encountered in our outdoor studio, so-called, curving upward to the light value of our "sky light" which we have decided will be our brightest or chief illuminant.

Thus, by restricting ourselves to this relatively small segment of the curve, we are keeping our range or "scale" of light values (from our shadows to our high lights) well within the possibilities of our medium. The types of film and papers which we must use in pictorial photography are necessarily of limited capacity. By that I mean there is a definite limit to the range of "lights" and "darks" which can be encompassed on films and papers; but we need not worry if we make our portraits under the lighting conditions herein recommended.

If, on the other hand, we attempt to compress practically the entire range from direct sunlight to deep shadows into the limited capacities of our negative materials and enlarging papers, then we find we have undertaken to accomplish something well nigh impossible. Why should we try to make portraits the hard way, when a much easier solution may be easily obtained?



"Wendell Willkie"

Fred S. Herrington, A.R.P.S.

If you attempt to put into practice the suggestions herein contained (as I hope you will), the chief difficulty encountered will no doubt be the selection of the location or spot in which to work. Consequently, further discussion of the matter of locale seems to be in order.

Select a place which is not open or exposed to the sky at *all* points of the compass. It is essential that the place be enclosed on three sides, so to speak. The subject, when posed, should be able to see the open sky only in one direction, through an angle of 90° or so. In other words, the subject should be shaded from open sky in three directions—from behind and from each side, as illustrated in the accompanying sketch.

The surrounding objects composing our three-sided enclosure may consist of trees, shrubbery, buildings, or any other similar structures or objects. The enclosure, so-called, does not have to be completely continuous throughout 270° of horizontal arc, but any appreciable gap in our enclosure may permit a disagreeable type of cross lighting.

When you locate the type of setting here described you will find you actually have a perfect portrait studio, complete with studio skylight; and if the visible open sky is to the north or northwest, you will have exactly that type of "north" light so highly prized by painters, sculptors and other artists. Moreover, you will find, as I have, that you can make portraits at practically any time of day from the middle of the morning until well into the afternoon with little or no change of shutter speed and diaphragm opening. In other words, the matter of exposure practically ceases to be a problem.

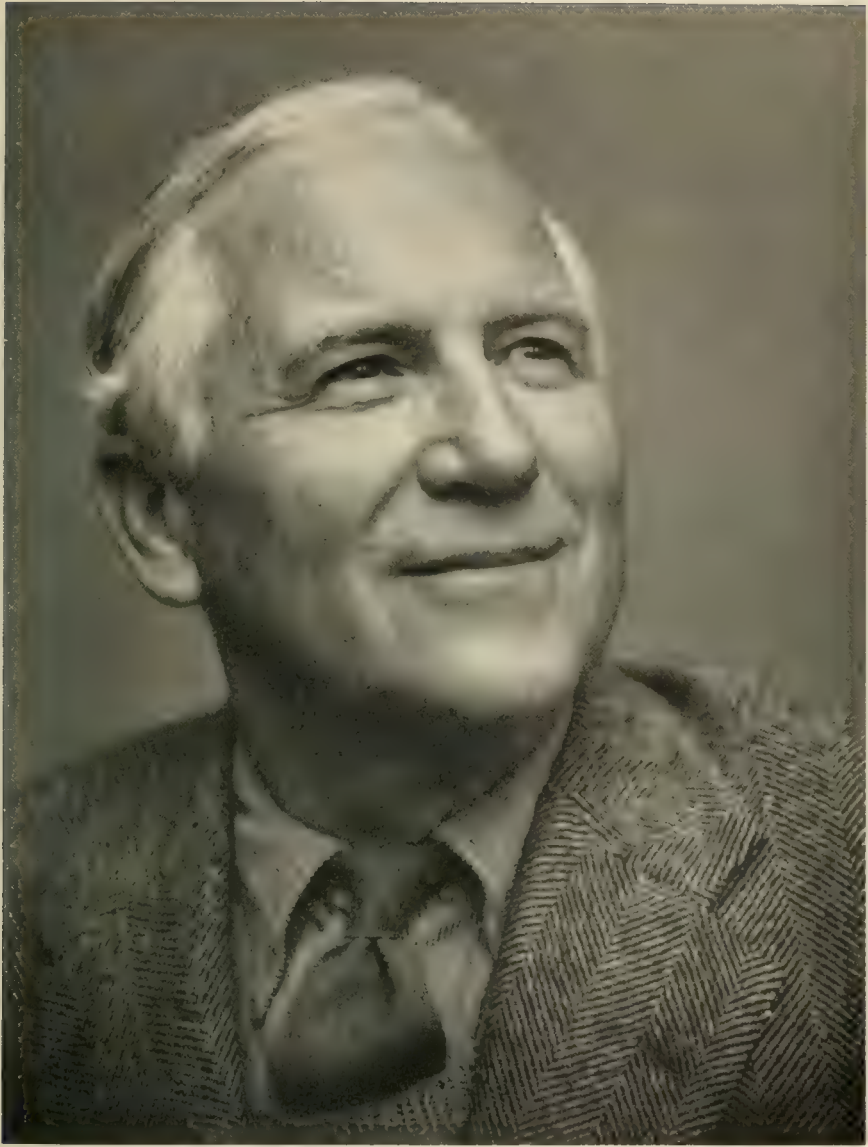
Certain other matters, pertinent to outdoor portraiture, will now be briefly discussed.

Backgrounds should be plain and unobtrusive, and of a middle or low key so as to furnish a foil for the flesh tones. Avoid light patches and circles of confusion in the background. Dark shrubbery in shadow, the side of a building or tent can serve as a background against which to pose the subject.

Place the subject out from the background a distance of two or three feet or more; and if the focal length of your lens permits, throw the background out of focus by using a relatively large diaphragm opening.

If possible, seat the subject. A fairly high camera angle is to be preferred in order to avoid over-emphasis of subject's neck and jaw, and to keep from depicting the nostrils too prominently. In addition to affording a better camera position, seating the subject minimizes subject movement and therefore gives better opportunity for rendition of skin textures. The sharper negatives thus obtained also permit bigger blow-ups, the 14"x17" prints currently favored for salon work.

Distortion and false perspective, so offensive to the painters and sketchers, must be studiously avoided. This can only be achieved by placing the camera a sufficient distance from the subject—at least five feet. At any lesser distance noses and chins swell to ludicrous proportions and a wholly false drawing of all of the features is the inevitable result. In so far as distortion is concerned, it matters not the slightest whether you are using a minicam or an 8"x10" studio job. A 50 mm. lens gives the same "drawing" as a 12-inch lens, assuming the two lenses are being used at the



"Edward Johnson"

Fred S. Herrington, A.R.P.S.

same distance from the subject. It is strange how often this fact is overlooked.

That illusive quality or attribute known as "pictorialism" is largely the result of subject-matter and expression. Interesting characters make interesting portraits. Beards, wrinkles, and lines (we have men in mind as subjects for the moment) all help us to render mood, character, and emotion—elements essential for pictorialism.

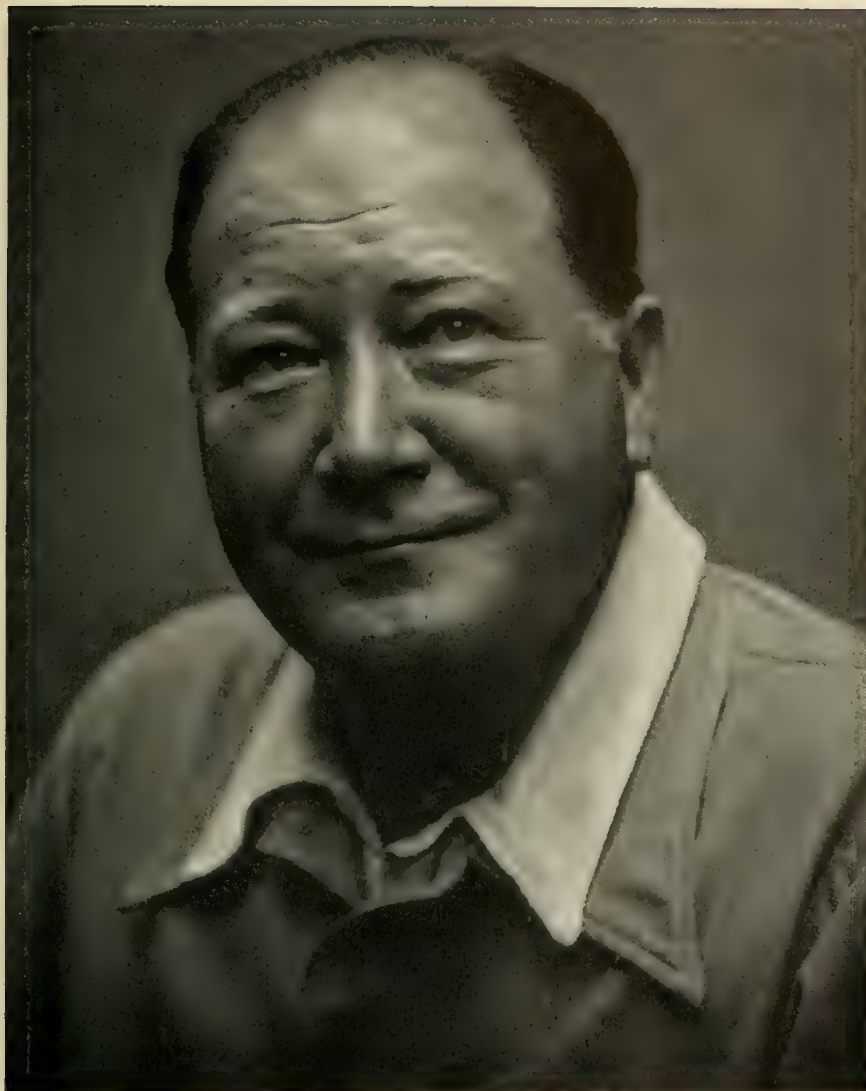
Generally, the eyes are the most expressive features of a subject's face; and if the eyes are depicted, we must always focus most sharply on them, or upon the eye nearer to the camera. Working in the shade as hereinabove recommended insures satisfactory eye detail; whereas the eye sockets are apt to be impenetrable shadows if the subject is posed in direct sunlight. Make sure you can discern catchlights in both eyes; and if the subject wears glasses look out for unwanted reflections.

Adequate rendition of the skin, hair, clothing and other textures is essential in portrait work. Proper lighting, exposure, development and printing all play a part in the rendition of these textures. As has been indicated, it is impossible to retain any real tactile feeling in chalky highlights or in overdense shaded areas, so let the knowledge of this fact serve as a constant reminder to avoid harsh lighting. Over-exposure as well as over-development, resulting in undue negative density, likewise hamper the rendition of textures. However, I am sure the most common cause of poor rendition of skin texture lies in bad print-making. We see portraits on every hand which are vastly under-printed. Either the print is under-exposed or under-developed, or both. Don't frisk your prints out of the developer too quickly. Leave them in the developer from three to five minutes, if necessary, until you are certain they are fully developed out. Add additional bromide to your working solution to guard against the possibility of fogging from such long development. Generally speaking, the highlight areas, such as the subject's forehead and bridge of the nose, should be included in your test strips; and you should calculate your printing times (exposure and development) so as to obtain some silver deposits in these highlight areas. If the forehead in your portrait is but plain blank paper, devoid of any silver deposit (without any skin texture showing), then you can be sure your printing technique is faulty.

Incidentally, in order to obtain negatives sufficiently sharp to render skin texture and other minute detail, it is essential, in the opinion of this writer, that a tripod be used at all times.

Train yourself to actually *see* the highlights upon your subject's face; and before you shoot make sure the highlights are placed where you want them, namely, on the forehead, cheeks, bridge of nose, and chin. For obvious reasons, do not highlight the subject's ears. The use of a blue viewing glass makes it easy to see the exact location and relative strength of the highlights.

We portrait workers have many troubles, and the various problems hereinabove discussed do not exhaust the total list of our difficulties. Possibly at some future time I may have the pleasure of discussing in these columns some additional possibilities of pictorial portraiture.



"John Charles Thomas"

Fred S. Herrington, A.R.P.S.



"Irvin S. Cobb"

Fred S. Herrington, A.R.P.S.

What Paper Shall I Use?

R. Manning Hermes

Part One

"Almost any negative which will produce a satisfactory contact print can also be used for enlargement."

LUCAS & DUDLEY¹

"The production of a negative for enlarging is far more critical than a negative for contact printing."

HEXTER²

WHAT is an amateur photographer to believe when upon searching contemporary photographic literature for guidance he is confronted with two such conflicting statements as appear at the beginning of this article? Here are statements made by three recognized experts in the field, statements which are a part of the text of two of the most recent works published. Which is right, or are both partially right and if so, how much is truth? Is it any wonder that the average amateur after consulting all the authorities feels a trifle bewildered?

One point is worth emphasizing here: Lucas and Dudley vs. Hexter are not the only conflicting authorities in the field. There are almost as many conflicts on the subject as there are writers. Here, for instance, is what C. B. Neblette³ has to say: "Fortunately, however, the difference among printing media and the opportunities for control in the operation of printing are such . . . that it is, to a certain extent, possible to secure from any average negative an enlargement with virtually the same gradation as a contact print."



Figure 1.

*Overexposed negative. Data:
3¼x4¼ Eastman Portrait Pan.
12 sec. at F:18.*

The eminent pictorialist, Paul L. Anderson⁴ points out, however, that the “average” negative as secured by using an exposure meter with the usual film speed ratings, had all its shadow portions in the “toe” of the characteristic curve, whereas, Mr. Anderson says, “it has been found that in order to secure truthful relative values, the exposure must be such that the entire scale of the negative falls on the straight line portion of the curve.” Mr. Anderson then concludes that the so-called “average” negative is not satisfactory as a guide in pictorial work.

The reader will note a very significant point in the foregoing discussion. Only the negative is considered. Not a word is said about the enlarging paper or its effect on the final print. It was this observation which led this writer to a study using a different approach than is customary. The conclusions reached may or may not be new, but so far as can be ascertained, they have not had publication in any of the journals which are commonly available. And these conclusions reconcile the vast differences of authority above noted.

Every teacher of photography, every advanced amateur has been asked time and again that perennial question which seems to be the nemesis of all beginners: “What paper shall I use?” Often the advice is given to concentrate on producing a good negative and the paper will take care of itself. But let us not be so hasty—this simple query has much more merit in it than many of us have realized. It is undoubtedly true that the nega-



Figure 2. Print on Kodabromide N-1 of the negative of Figure 1. $1\frac{1}{2}$ minutes in Eastman D-72, diluted 2 to 1.



Figure 3. Print on Brovira Velvet Soft of the negative of Figure 1. 3 minutes in Agfa 125, diluted 4 to 1.

tive is of vital importance, that it must, as most writers contend, be made with the final print result in mind. But how can one decide what characteristics the negative must have without a thorough study of printing papers and their idiosyncracies. That is the job we will try to do in this series of articles. Know your papers, and negative making will be a much easier job.

Let us, therefore, come quickly to the point. Even a brief study will reveal that some types of paper have a characteristic curve with a long toe and a short shoulder, whereas in others the opposite is the case. We are now ready to state two of the rules which a careful study of some enlarging papers has revealed. For those readers who will accept them on faith immediate practical results can be obtained. For the more analytical-minded a complete exposition of the theory involved will follow later. Here, then, are two for a beginning.

1. If you follow the adage to expose for the shadows, you will get your best prints from a paper having a short toe.

2. If the minimization of grain through keeping the exposure as short as possible is your aim, you will have better results from a paper having a long toe.

PRINCIPLE 1 is illustrated in Figs. 1, 2, and 3. The problem involved was to photograph a set of glassware. To control the highlights due to the reflections inherent in the nature of the subject and at the same time to



Figure 4. Showing lack of contrast in the shadow portions. $3\frac{1}{4} \times 4\frac{1}{4}$ Eastman Portrait Pan. 1 sec. at F:22.

maintain texture in the shadow portion, it was necessary to give generous exposure and normal development. This resulted in the rather dense negative shown in Fig. 1.

It will be noted that there is good gradation in the shadow portions of this negative, whereas the highlights tend to be blocked up. A print from this negative on a paper having a long toe is shown in Fig. 2. Although the print is full scale, it exhibits a general overall flatness. In short, it is the type which we usually associate with an overexposed negative. However, the loss of tone quality is due only to the use of a paper with an unsuitable characteristic curve. This common pitfall has been avoided by adhering to PRINCIPLE 1.

Fig. 3 shows the result of printing our negative on a paper having a short toe. Here the glass quality in the large decanter is much more satisfactory. The middle tones are lower, yet we have the same highlight white and shadow black in both prints, showing that both are full scale prints. Both prints, incidentally, were made on a soft grade of paper.

PRINCIPLE 2 is applied in Figs. 4, 5 and 6. The object here was to obtain a print of some catalpa blossoms and leaves. The blossoms are white, the leaves rather a dark green. Emphasis was to be placed on the blossoms, a fact which required full gradation and texture in the highlights. Consequently, minimum exposure and normal development was called for. However, the leaves, being green, were somewhat underexposed. The resulting negative is shown in Fig. 4.



Figure 5. Print on Brovira Velvet Soft of the negative of Figure 4. 3 minutes in Agfa 125, diluted 4 to 1.



Figure 6. Print on Kodabromide N-1 of the negative of Figure 4. 1½ minutes in Eastman D-72, diluted 2 to 1.

This negative is quite the opposite of that reproduced in Fig. 1. Here, the highlights, while heavy, show no blocking but the shadows are thin and flat. Printing this negative on a paper having a short toe results in Fig. 5. That this print is not on too hard a paper is shown by the fact that the leaf detail at the base is not completely lost. But the gradation in the shadows is so slight that the print looks muddy. On the other hand, highlight detail and texture have been maintained. This combination of rich highlights and muddy blacks is usually associated with an underexposed negative.

We can easily overcome this difficulty by an application of PRINCIPLE 2. Printing the negative on a paper having a long toe leads to Fig. 6. The highlights are no whiter in this print than those in Fig. 5 but note how the shadows have been opened up. Every leaf now has texture and form. As was the case with Figs. 2 and 3, both prints are full scale and both were made on a soft paper.

Does the paper you have been using have a long or a short toe curve? How are we to determine which papers have short and which have long toe curves? As will be shown later, Cykora and Kodabromide are two good examples of papers with a long toe. Brovira has a short toe. Knowing this, we find it simple to determine the curve of any other paper. This is the method:

Make a full scale print on either Cykora or Kodabromide. From the same negative make a full scale print on the paper whose characteristic curve is unknown. Then compare the middle tones of the paper in question with those of your known print. If the toe of the tested paper is short, these tones will be darker than those on the control print; in fact, the darker the middle tones, the shorter the toe.

Between now and the next article, why don't you try to save some of those overexposed negatives, that you haven't thrown away yet, by printing them on a short toe type of paper?

(To be continued)

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Cinema Section

Edited by

William A. Palmer

Do Your Christmas Shooting Early

William H. Abbeuseth

AS MANY movie makers have discovered, the fun really begins with the making of pictures that tell a story. With the holiday season near at hand, it is none too soon to start planning a Christmas story. The word "planning" is used advisedly. Christmas, with all its color and drama, is "open season" for the home movie maker. Except for the summer vacation trip, or a world's fair, there is hardly another occasion so stimulating to the trigger finger—or so productive of disappointing results.

The trouble, of course, is catch-as-catch-can shooting—that frenzied, last-minute effort to record the exciting Christmas story on film. It is the kind of haphazard camera work that is better left for those who don't have to think twice about the price of film—and for those who, under the pretense of showing their latest movies, subject their friends to a refined and very cruel form of torture. If the Christmas picture is to tell a story—worth seeing on the screen then the story must be planned!

Planning begins with the story "idea." Christmas being essentially a home celebration, the amateur producer will likely favor a home setting, and a story involving all or part of the family. Individual circumstances and surroundings have some bearing on the choice of a story idea. If there are children in the family so much the better, for their delightful unrestraint can add much to the effectiveness of a picture.

The type of story to be used is largely a matter of individual preference. A good plot could be built around the Christmas tree itself—starting with selection of the tree at the market, dramatizing its brief reign of glory in the home, and closing with its dismal finish in the ash can. Another approach would

be the story of Christmas as seen objectively through the eyes of a young child—utilizing trick photography to create the desired impression of fantasy. Or, in the spirit of Christmas gaiety, a light comedy treatment might be preferred. With so much rich material available the movie maker need be limited by little more than his own imagination.

More important than story selection is story development—on paper—in terms of the visual medium of the screen. It is a medium that provides many unique opportunities for the expression of ideas and emotions. It also imposes some definite limitations. The most successful script takes full advantage of the possibilities and remains within the limitations.

Screen story construction—or screen treatment, as Hollywood labels it—is by no means as difficult as some move makers would make it. Which is another way of saying that the story need not be involved. Indeed, it is the simple plot, treated with full awareness of the medium's possibilities and limitations, that makes the best picture. Far more essential than plot complications is to “see” the story as the camera lens will see it—judiciously employing the camera as a tool with which to tell the story graphically and dramatically.

As an example of the dramatic possibilities in a seemingly trivial incident there is that old chestnut about the father who gives his son an electric train for Christmas and then monopolizes it himself. That this is not an original idea is no argument against its use. What is done with the idea is the thing that counts. The very fact that the situation is an obvious one will make it all the more enjoyable for the audience—if the situation is well presented.

To be well done, the picture must be carefully planned to get the utmost out of the situation. The story should progress smoothly, from a logical beginning to a logical end. Every scene in the picture should be there for a definite, constructive reason. Every bit of “action” should be visualized in terms of the screen—there should be no doubt in the minds of the audience as to “the point.”

Obviously, the electric train story can be effectively developed for the screen from many different angles. Here is one version that imposes no great hardship on cameraman or cast and which could be made into an entertaining short comedy:

SCENE 1. Long shot. The living room on Christmas morning. The family—Dad, Ma, Sis and Junior—are gathered around the Christmas tree. Christmas packages are piled around the foot of the tree. There is much excitement, for Dad is about to hand out the packages. (This is an “establishing shot”—to show the time, the place and the cast. For plot purposes Junior should be played by a boy somewhere between the ages of seven and ten.)

SCENE 2. Mid-shot—near the Christmas tree. Dad takes package from foot of tree and hands it to Ma; then takes another package from the pile and hands it to Sis. Dad is rather matter-of-fact about the business of gift distribution, giving the definite impression that he is anxious to get on to more important matters. But now his manner changes to one of keen interest, as he picks up a third package.

SCENE 3. Close-up. Father holds package before him and eyes it admiringly—as if to say: “Now *there* is a *real* Christmas gift!”

SCENE 4. Mid-shot. Junior looks wonderingly at the package, obviously mystified as to the contents. He fingers the tag attached to the package and brings it closer to see if that will provide a clue.

SCENE 6. Extreme close-up. The tag in Junior's hand. The inscription reads: "To Junior from Santa Claus."

SCENE 7. Close-up. Junior's face. He looks up, from reading of the tag, turns toward Dad and gives him a knowing smile.

SCENE 8. Close-up. Dad's face. He acknowledges the smile with a wink. (They understand each other.)

SCENE 9. Medium close-up. Junior, eager to see what is inside the package, is having trouble untying the string. Dad comes into the scene, impatiently breaking the string. Junior proceeds to unwrap the package.

SCENE 10. Close-up. Dad's face—he is enjoying to the full his knowledge of the big surprise in store for Junior. Suddenly his face breaks out in a broad grin. (Junior has at last uncovered the surprise gift.)

SCENE 11. Close-up. Junior's face—he is looking down, in wide-eyed wonder at his present (which the camera does not show). He looks over to Dad with an "It can't be true!" expression, then looks down again toward the gift. The camera pans down, following the movement of his eyes, to the opened package in his hands. Now we see that the big surprise is an electric train set. Suddenly, Dad's hands come into the picture, removing the package. Junior's hands remain in the same position, as if he were still holding that precious package. The camera then pans back to Junior's face—now wearing a bewildered expression as he watches Dad making off to another end of the room with the train set. Fade out.

SCENE 12. Fade in. Mid-shot. Dad is kneeling on the floor, eagerly assembling the electric train set. Junior—a spectator by necessity rather than choice—is kneeling nearby. On the floor, between Dad and Junior, are unassembled sections of the railroad track, cars, etc.

SCENE 13. Close-up. Looking down toward the floor—the space between Dad and Junior. Junior's hand reaches out to pick up a section of unassembled track. Dad's hand gets there first, grabbing the track and placing it in position. Junior's hand reaches out for another unassembled section. Again Dad gets there first. (The timing and "action" should indicate, not maliciousness, but that Dad is too preoccupied to be aware of Junior's presence.) Once again Junior's hand reaches out, this time for a railroad car—and once again Dad has it first and places it on the track. The camera pans over to Junior, grimly watching Dad. Fade out.

SCENE 14. Fade in. Close-up. Looking down on part of the assembled railroad set, showing a spur track connecting with the main line. A train whizzes by on the main track. Dad's hand then comes into the picture, setting the switch. The train reappears and switches over to the spur track. Junior's hand comes into the picture to shift the switch but Dad gets there first. This routine is continued for a few more feet.

SCENE 15. Medium close-up. Junior watching the moving train, then grimly looking toward Dad. Without change of expression, Junior rises and walks away. Fade out.

SCENE 16. Fade in. Mid shot. Looking down toward the floor—a rear view of Dad playing with the train. Dad's back is in the foreground. Junior's hand comes into the picture. He nudges Dad in the back. Dad makes no response. Again Junior nudges. Dad now turns and looks up with an annoyed expression. Junior holds out a Christmas tag. Puzzled, Dad looks questioningly at Junior then takes the tag and reads it.

SCENE 17. Extreme close-up. The tag. It is the same tag seen at the beginning of the picture. But now the inscription, "To Junior from Santa Claus," has been crossed out. Over it, in childish hand, has been written: "To Santa Claus from Santa Claus."

SCENE 18. Close-up. Dad's face. Looking up from the reading of the tag, he turns, with sheepish expression, toward Junior.

SCENE 19. Close-up. Junior's face. Still wearing a dead pan expression, he gives Dad a long, sarcastic wink. Fade out.

It will be noted that no subtitles have been indicated. The movie maker who plans his own Christmas story will do well to use subtitles sparingly. Few if any, are needed if the camera is properly employed to tell a graphic story. Also noteworthy, in the above script, is the generous use of close-ups—an invaluable means of obtaining dramatic emphasis.

Having worked out a detailed screen treatment, the next step is to plan the shooting. More than likely only a few scenes require the actual Christmas setting. In the above script much of the picture can be shot at the cameraman's convenience—either before or after Christmas.

Contrary to general belief, it requires no great amount of equipment or "gadgets" to make a good story-telling picture. A lens of longer than normal focal length, or a portrait attachment, comes in handy for close-ups, but a movie titler will serve as a satisfactory substitute. A range of camera speeds is useful but the same effect is often obtainable by regulating the action of the subject. Fades need not be made in the camera—in fact, they can be placed more judiciously by the dye method, when the picture is edited. Panning, without a pan head on a tripod, is difficult but not impossible. A smooth, horizontal pan is quite feasible if the tripod head screw is loosened slightly to permit the camera to turn on the tripod head. A vertical camera movement can be achieved by smoothly telescoping one leg of the tripod. And a trucking shot involves no more than a baby buggy, or any other similar object on wheels, and a smooth floor. (It is assumed that the movie maker *does* have a tripod—and no self-respecting cameraman would attempt to make a picture without one!)

If lack of equipment is considered an excuse for not attempting a story-telling picture, the movie maker might better turn his attention to stamp collecting or some other hobby. If it can't be done one way, the resourceful movie maker finds another way of doing it. The most important requirements in the making of a successful story-telling picture are imagination and creative effort. It is in the very use of these requirements that the fun really begins in movie making. The movie camera owner who has never experienced that fun will find no better time to start than now—with a Christmas story.



Earl M. Scott, Los Angeles, Calif.

First Award—Advanced Class

♦ Mr. Scott has an absolutely unique record in these competitions. He has sent in exactly two prints and has won exactly two first awards. We feel that that is something of an accomplishment. In our opinion it takes a thoroughly mature artist to successfully carry out a picture such as this. With such a simple arrangement, the linear and tonal balance has to be perfect or the whole picture falls apart. Don't look for a story in this picture, but just try to enjoy the fine harmony of line, mass and tone. Try to feel the thrill which the clean simplicity of the thing can give once you have learned to respond to this sort of beauty. This picture has the emotional qualities, the beauty, of precision machinery, mathematics, or modern furniture and architecture. Such forms of beauty are just as real and just as exciting as any other once we have learned to react to them.

Data: 4 x 5" Crown View; 8" Kodak lens, F:7.7; DuPont film in ND-2 developer; 11 x 14" print on Defender Velour Black glossy; split sepia toned.



"Per Hansa"
W. Ellis Teas,
Pasadena, Calif.

ary lighting is used only to bring the photographic rendition up to what the eye would see under a single source lighting.

Data: 11 x 14" print.

♦ Here is an excellent piece of portraiture. The pose is natural and revealing, with a suggestion of interrupted action. There is a fine richness of tonality achieved through good technique, and the spacing leaves nothing to be desired. Numerous details of the arrangement are handled with sureness and understanding. The hands, for example, are well subordinated to the face, yet they tell their part of the story quite successfully; the bowl of the pipe is carried against the lighter tone of the sleeve so that it stands forward in its proper plane; and the background tone is just right to give pleasing but not too prominent relief to the form as a whole. If there is any weakness here it lies in the direction of an over elaboration of the lighting. We would like to see slightly less light on the model's left ear and shoulder. The highlights on the inner side of the left ear in particular are rather strong and tend to call attention to the lighting as such. The lighting which appeals as most natural and most sincere is that which *appears* to come from a single source. With such an objective second-



"Edward Weston"
Glen Fishback,
Sacramento, Calif.

♦ We feel that this is an excellent photograph of Weston at work. The fact that it is thoroughly typical is hardly significant because only a few would be in a position to judge of that. But it is also typical of what most of us I'm sure have heard and felt about Weston, and that is important to a picture. The figure and camera are nicely related to the form of the rock; the action is good and serves to cut down the amount of the white side of the focussing cloth which is shown, which is an advantage since it might easily have been too prominent in the picture; and finally textures are beautifully rendered, which seems particularly fitting and necessary in a picture of Weston.

Data: 5 x 7" Agfa Universal View; 10" Zeiss Tessar F:6.3; 1/50th sec. at F:32 on Agfa Triple S Pan, in ABC Pyro; 11 x 14" print on Kodabromide F, in Amidol.

Fourth Award

Advanced Class

✦ This picture conveys a vivid impression of the intense heat and dustiness of this desert-like locality, while the two natives add an effective touch of human interest. The dark mass of the cactus on the right emphasizes the well rendered aerial perspective and also completes the composition which would otherwise be weak on the right. At first glance one is inclined to question the necessity of the dark mass on the right, but if it is trimmed away the composition is weak on the right as we have already pointed out. Further, with such trimming a great deal of emphasis is placed upon the figures and they are not seen in sufficient detail to be satisfying when they must carry the story alone. Things would be a little better if the figures were a bit farther back into the landscape, in which case they would function only as a point of emphasis and the present tendency to look for detail in the figures would disappear.

Data: 15 x 19" print.



"Going Home"
Axel Bahnsen.
Yellow Springs, Ohio

Fifth Award

Advanced Class

✦ The attractions of this picture, including the clever title, are so readily apparent that any attempt to describe them is surely superfluous. Pictures like this have to be caught on the fly, of course, and we suspect that the photographer is usually thinking mostly of getting a simple personal record of his offspring at the time and as a consequence does not pay as much attention to the setting as he would otherwise do. As a result the great majority of such shots are partially spoiled by distracting spots and lines such as are evident here. Regardless of what your objective may be it is always a good idea to arrange the setting with care so that if opportunity knocks as it did in this case, you are all set to take full advantage of it. There is a falling off of tone value toward the upper right which should be corrected by dodging. Such dodging will also improve the picture by decreasing the contrast between background and chair, particularly in the case of the spot at eye level and to the right of the baby.

Data: 4 x 5" Series D Graflex; 1/10th sec. at F:6.3. on Agfa Super Plenachrome; two photo-floods on subject one on background; 11 x 14" print on Agfa Cykora Porcelain.



"Spinach!"
Robert N. Belt,
Chicago, Ill.



"Hotaling Place"

Samuel O. Hoffman, San Francisco, Calif.

First Award—Amateur Class

✦ This picture appears twice in this issue due to the fact that it won one of the awards in the West of the Rockies Salon and a place in these competitions at about the same time. Since we are showing all of the awards from the salon it hardly seemed fair to exclude this picture.

This is Mr. Hoffman's second "first award" so he is automatically promoted to the Advanced Class.

The "West of the Rockies" jury made the following comment in the salon catalogue: "This appeals as an unusually successful example of the 'candid' type of photography. 'Unusually successful' because there is nothing of the awkward or superfluous detail which is usually so prominent in this sort of photography. The effectiveness of the picture is enhanced by the delightful element of humor." And the humor is there all right. The crazily hung pictures combined with the amusing silhouettes of the onlookers join to make an entertaining commentary on art appreciation. The short gal in the pancake hat steals the picture, don't you think?

Data: Leica camera; 1/200th sec. at F:6.3, on Agfa Finopan, in Kodak DK-20; 8 x 10" print on Defender Illustro, in Defender 55D.

Second Award

Amateur Class

♦ This picture gives an excellent presentation of an individual peering intently into a bright sun at a moment of great concentration. It would appear as if this gentleman is about to click the shutter on a masterpiece. Notice the fine technical quality which has been achieved in spite of the contrasty nature of strong direct sunlight. The technical data reveals that this was achieved by means of a full exposure followed by development by the water bath method, to hold down contrast. In this method the film is immersed for a short period in the developer and then placed face up in still water for a somewhat longer period. The procedure is repeated until the desired density is obtained. We believe the head would sit more comfortably in the picture space with more space on the left and perhaps slightly more at the base.

Data: 4 x 5" Korona View; 8 1/4" Goerz Dagor; direct sunlight; full exposure on Kodak Super XX, developed in Pyro by water bath method; 6 x 8 1/2" print on Kodabromide F-2, in Kodak D-72.



"Haggerty"
Joe Munroe,
Detroit, Mich.

Third Award

Amateur Class

♦ The arrangement is good here and the texture in the highlights and middle tones is well rendered. For our taste at least the shadows go a bit too black. Quite obviously there are many cases where full shadow detail is not desirable and this is certainly one of them. Such a rendition would weaken the pattern and make the picture so full of fine detail that desirable simplicity would be lost. When shadows go completely black, however—when they are entirely devoid of even the suggestion of structure—the feeling of substance is lost and the shadow appears as if it were a dark hole.

We do not mean to imply that absolutely black shadows are never permissible for there are more than a few cases where such treatment is the best solution. Here, however, we would prefer to see the shadow tones lifted to the point where all but the deepest carry some faint suggestion of form.

Data: 5 x 7" Watson; 6" Goerz Dagor lens; Kodak Ortho-X; 14 x 17 1/4" print on Defender Glossy.



"Chicken Feed"
Edward H. Gignac,
Dearborn, Mich.



"Time Marches On"
C. B. Phelps, Jr.,
Grosse Pointe, Mich.

this picture as we see it is that it does not clearly do any one of them, but instead a combination of several.

Data: 9 x 12 cm. Voigtlander Bergheil; 1/100th sec. at F:11, on Agfa Superpan Press, in Agfa 17; K-2 filter; 13½ x 16½" print on Kodak Vitava Projection G-2; Stuart's Roto Toner.

Fourth Award

Amateur Class

✦ This is a quaint and interesting old building and Mr. Phelps has photographed it nicely, but we cannot escape the impression that the picture has not been really worked out. There are many things one might do with this material. If the building itself is the main theme the figures seem unnecessary. If the hurrying figures are the theme, there is too much building and the movement of the figures would have to be stopped. If we wished to play the light building against the darker one on the left, it would seem better to move to the right and eliminate the third building on the right so that the intention would be more clear. If we wished to show the quaint old building in a modern setting it would be better to move back a bit so that the setting plays more of a part. Isolation of the building itself is rather difficult because of its tall narrow shape, but that might be overcome by moving to the right and using the tree to fill things out. The photographer is free to do any of the things mentioned and others besides. The weakness of



"Jane and King"
Lloyd G. Ingles,
Chico, Calif.

Fifth Award

Amateur Class

✦ The soft light of the hazy day has made possible a very beautiful rendition of the dog's coat and the white dress of the girl. The dog is excellently posed, being very alert and proud in his bearing. We would like to see the girl tied in to the dog's action a bit more, instead of being merely a more or less passive leash holder. The dark rock is rather unfortunate because it interferes with the dog's tail and for that reason, and of course by contrast, calls undue attention to itself. Some dark form on the left, such as a tree would not be out of place so long as it did not cut into the figures. The G filter probably helped to hold contrast in the dog's coat, but observe how little effect it had on the gray sky. Filters have no effect unless there is color for them to work on.

Data: 3¼ x 4¼" Graflex; 1/110th sec. at F:8, on Agfa Isopan in D-76; hazy day in October, with G filter; 11 x 14" print on Agfa Brovira Kashmir, in D-72.

Monthly Competitions

The Jury

P. Douglas Anderson, F.R.P.S.; W. E. Dassonville; George Allen Young.

Scoring for Club Trophy

The following won points for their respective clubs in the Advanced Class: Robert L. Belt, for the Fort Dearborn Camera Club; Glen Fishback, for the Pacific Camera Guild; W. Ellis Teas, for the Pasadena "Y" Camera Club; and Axel Bahnsen, for The Yellow Springs Camera Club.

The following won points for their respective clubs in the Amateur Class: Joe Munroe, Edward H. Gignac and C. B. Phelps, Jr., for the Detroit Camera Club; Lloyd C. Ingles, for the Kamera Kranks; and Samuel O. Hoffman, for the Photographic Society of San Francisco.

Earl M. Scott has not indicated any club affiliation.

Standing of Clubs

Large Clubs—Advanced Class

Pasadena "Y" Camera Club.....	40
Fort Dearborn Camera Club.....	30
California Camera Club.....	17
Manhattan Camera Club.....	5

Small Clubs—Advanced Class

Photographic Society of Hong Kong.....	20
Yellow Springs Camera Club.....	17
E. P. I. C. Pool.....	4
Rothschild Camera Clinic.....	4
Pacific Camera Guild.....	3
Palo Alto Camera Club.....	3
Alameda Photographic Society.....	2
Aremac Camera Club.....	2
Kamera Kranks.....	1

Large Clubs—Amateur Class

Detroit Camera Club.....	47
Cleveland Photographic Society.....	30
California Camera Club.....	17
Miniature Camera Club of New York.....	17
Photographic Society of San Francisco.....	16
Amherst Camera Club.....	5

Small Clubs—Amateur Class

Camera Club of Maryland.....	11
Kamera Kranks.....	9
Dallas Pictorialists.....	4
Tulare Camera Club.....	4
Greenville Photographic Society.....	3
Women's Photographic Society of Cleveland.....	2

Contributing Clubs for the Year

*Alameda Photographic Society (Calif.)
 Aluminum Camera Club (New Kensington, Pa.)
 Amherst Camera Club (Mass.)
 Aremac Camera Club (San Francisco)
 Arrowhead Camera Club (San Bernardino, Calif.)
 Birmingham Camera Club (Ala.)
 Blue Bell Camera Club (Detroit)
 Buffalo Museum of Science Camera Club (N. Y.)
 Burbank Camera Club (Calif.)
 Calgary Photographic Society (Canada)
 *California Camera Club (San Francisco)
 Camera Circle (San Francisco)
 Camera Clan of Waterbury (Conn.)
 Camera Club of Lehigh Valley (Allentown, Pa.)
 Camera Club of Maryland (Baltimore, Md.)
 Camera Club of San Pedro (Calif.)
 Camera Club of Tarrytown (N. Y.)
 Central Camera Club (Brooklyn, N. Y.)
 Central Florida Camera Club (Winterhaven, Fla.)
 Central Valley Camera Club (Tracy, Calif.)
 Central Y. M. C. A. Camera Club (San Francisco)
 Channel City Camera Club (Santa Barbara, Calif.)

Cleveland Art Club
 *Cleveland Photographic Society
 Dallas Pictorialists (Texas)
 Dayton Photographic Society (Ohio)
 *Detroit Camera Club (Mich.)
 Everett Camera Club (Wash.)
 Exeter Photographic Society (Calif.)
 F:8 Camera Club (Salinas, Calif.)
 Florida Camera Club (Tampa, Fla.)
 *Fort Dearborn Camera Club (Chicago)
 Fresno Camera Club (Calif.)
 Gemmy Photographic Society (Hong Kong, China)
 Grays Harbor Camera Club (Aberdeen, Wash.)
 Greenville Photographic Society (Ohio)
 Hamilton Camera Club (Mont.)
 Hermitage Photographic Society (Nashville, Tenn.)
 Highbridge Camera Club (New York City)
 Hollywood Camera Club (Calif.)
 Japanese Camera Club (Chicago)
 *Kamera Kranks (Durham, Calif.)
 Light and Shadow Club (San Jose, Calif.)
 Lincoln Park Camera Club (Chicago)
 Madras Amateur Photographic Society (India)
 *Manhattan Camera Club (New York City)

(Continued on page 754)



Club Trophy Cup 1941

THE WINNERS

Large Clubs—Advanced Class

**Pasadena "Y" Camera
Club
Pasadena, Calif.**

Small Clubs—Advanced Class

**Photographic Society of
Hong Kong
Hong Kong, China**

Large Clubs—Amateur Class

**Detroit Camera Club
Detroit, Mich.**

Small Clubs—Amateur Class

**Camera Club of Maryland
Baltimore, Md.**

The End—The Beginning

For the eighth time we reach the annual conclusion of the scoring for the Club Trophy Cups. Identical gold cups are awarded to each of the four winning clubs listed above.

Scoring for the 1942 Club Trophy Cups begins with the January issue, the judging for which takes place December 1st. Prints are judged on the first day of each month following. Clubs should remember that consistent submission throughout the year is the secret of success.

(Continued from page 753)

Marion Camera Club (Ohio)
Miniature Camera Club of New York
Missoula Camera Club (Mont.)
Oakland Camera Club (Calif.)
Oklahoma Camera Club (Oklahoma City, Okla.)
*Pacific Camera Guild (San Francisco)
Palo Alto Camera Club (Calif.)
*Pasadena "Y" Camera Club (Calif.)
*Photographic Society of Hong Kong (China)
Photographic Society of India
*Photographic Society of San Francisco
Queen City Pictorialists (Cincinnati, Ohio)
Reclamation Camera Club (Denver, Colo.)
Retlaw Camera Club (San Francisco)
Rothschild Camera Clinic (Los Angeles)
Round Table Photographic Society (Alameda, Calif.)
Sailors and Soldiers Camera Club (Hong Kong, China)

San Jose Camera Club (Calif.)
San Francisco Camera Clique
Santa Fe Photographers (New Mex.)
Santa Maria Camera Club (Calif.)
Sierra Camera Club (Sacramento, Calif.)
*Signa Phi Nothing (Sacramento, Calif.)
Sierra Madre Camera Club (Calif.)
South Plains Camera Club (Lubbock, Tex.)
Stotsenburg Camera Club (Manila, P. I.)
*Studio Camera Club Sacramento, Calif.)
*Tamalpais Camera Club (Calif.)
*Tulare Camera Club (Calif.)
Tulsa Camera Club (Okla.)
*Women's Photographic Society of Cleveland (Ohio)
Yakima Camera Club (Wash.)
*Yellow Springs Camera Club (Ohio)

* Denotes clubs contributing this month.

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A Photographic Monthly

George Allen Young, Editor

Volume XLVIII, January to December, 1941

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Club Notes

Photo Instruction

Virgil A. Muhler of the Eastman Kodak Company will open a course for the University of California Extension Division entitled, "Photography: Amateur Motion Pictures" on Friday, November 28, at the San Francisco Extension Division center, 540 Lowell Street. Muhler has announced that the class will cover "The motion picture camera — loading procedure — adjustments at manipulation. Characteristics and uses of films. Methods of exposure determination. Focusing and panoraming. Principles and theory of filters. Fundamental continuity methods. Simple rules for developing picture-sense and mass arrangement. Types—use and use of projectors." The two-hour class will open at 7 p.m. Fee for the 10 weekly meetings has been set at \$8. First meeting of the class is open to the public without charge.

Contests

\$425.00 in cash prizes will be awarded in the Harlequin Photography Contest announced by the Harlequin Corporation, makers of Harlequin eyeglass frames. Pictures must include Harlequin Glasses, either worn by a female subject or used as part of the composition of the photograph. The contest is open to both amateurs and professionals, with separate prizes in each division. Entries should be sent to the Contest Editor, Harlequin Corporation, 512 Fifth Ave., New York, N. Y. Closing date is April 1, 1942.

A contest for news photographers for the best published photographs featuring cigar smokers has been announced by the Cigar Institute of America, 630 Fifth Ave., New York City. \$150.00 in cash awards will be presented and the closing date is Dec. 31, 1941. Write the above address for complete details.

Florida Rendezvous, 1661 Biscayne Blvd., Miami, Florida, announces a photographic contest for amateurs and professionals. Awards will total \$40 each month; \$25 for first prize, \$10 for second, and \$5 for third. All types and classes of photographs considered, but Florida atmosphere encouraged. Contest will continue monthly up to and including April.

An amateur photo contest will be held at the Cow Palace, November 15 to 22 during the Grand National Livestock Exposition under the sponsorship of the San Francisco Examiner. Cash prizes totaling \$55 and merchandise orders valued at more than \$100 will be awarded. Walter Lenz of the Examiner, in charge of the event, announced that entries should be submitted to Lenz at the Examiner before December 1. Present plans call for the awarding of a \$25 grand prize, a \$10 prize for the best horse show picture, \$10 for the best rodeo picture and \$5 for the best livestock picture. Judges are Nion R. Tucker, director of the 1-A Strict Agricultural Association; Fred S. Harrington and E. Carl Wallen.



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to the public

and the retailer.

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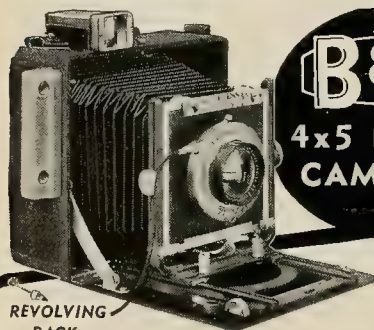
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Notes and Comments

New Products

A unique Amateur Press Photographer's outfit containing all the essential items for successful flash pictures at night, as well as daytime pictures, has just been announced by Agfa Ansco. The complete flash-camera outfit contains: an Agfa Cadet-Flash Camera; Flash Unit with Reflector; 8 Mazda Photoflash Lamps; an Adapter for the lamps; No. 915 (Size AA) Eveready Batteries; and rolls of Agfa A8 (same size as 127) Super-8 Press Film. This equipment brings the technique of popular flash photography within the reach of every amateur. The easy-to-operate Cadet-Flash Camera has a high-quality, fixed-focus lens and dispenses with complicated adjustments and camera settings. The Flash Unit can be instantly attached to or detached from the camera. The dependable, instantaneous shutter is automatically synchronized with the flash mechanism so that the user can depend on good pictures. The inexpensive Amateur Press Photographer's Outfit will be a popular gift item inasmuch as it retails for less than \$5.00 and represents a combination of high-quality photographic products that may be used by both children and grown-ups to obtain excellent pictures.

The McGraw Carbro Color Trial Kit, introduced by the McGraw Colorgraph Co., 175 W. Verdugo Ave., Burbank, Calif., contains all the materials and instructions for making tricolor prints from Kodachromes or single color prints from ordinary black-and-white negatives. The kit contains enough material to make 3 tricolor and 6 monochrome prints and is priced at only \$4.95.

Sturdy, dependable, yet small in size, the new Kodaslide Projector, Model 2A, manufactured by the Eastman Kodak Company, brings new pleasure to still picture enthusiasts when projecting their full-color 2 x 2 inch Kodachrome transparencies. Available with either a 5-inch f:3.5 lens, or a 7 1/2-inch f:4.5 lens, this new model is extremely easy to handle. Replacing the popular Model 2, the Kodaslide Projector, Model 2A, carries a 50-watt lamp that, in combination with either lens, throws clear, evenly illuminated images on the screen. Skillful design provides for proper control and dissipation of heat from the lamp and a special heat-absorbing glass of extra quality protects the slide being projected from overheating. To simplify the loading and changing of Kodasides, the Kodaslide Changer may be used conveniently with the Model 2A Projector. In addition to the Combination Case or projector, lens, and file boxes, a new Projecto Case will be available soon. The new case resembles the Combination Case but in addition it carries a folding leg stand which, when in use, provides a convenient projection stand and an extra shelf for 2 x 4-inch slide boxes.

(Continued on page 761)

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(Continued from page 759)

A new magnetic movie titler, for Black and White and Kodachrome titles, called Quixet, has been placed on the market. Made of plastic and equipped with "Alnico" magnets, Quixet letters require no adhesives or pins, but hold firmly to any iron or steel surface through paint, lacquer, or enamel. The letters have sufficient power to "pull" rough paper, cloth, photoprints—permitting the use of interesting backgrounds for titles. Quixet Magnetic letters do not have to be set in straight lines, and can be arranged in curves, angles, circles, etc. They are guaranteed to retain their magnetic properties for ten years. Being easy to use and quick to change, Quixet letters are ideal for use in conjunction with Graflex identification. The letters are $\frac{5}{8}$ " high, and are also available in 1" and 1 $\frac{1}{2}$ " size letters. They come in sets of white letters with black enamel and red letters with blue or green enamel, in regular or de luxe sets. For descriptive booklet and further information, write Hamilton Dwight Company, 155 East 4th St., New York City.

Now the finest in Bromoil material becomes available to American users with the equipment manufactured by Berlett Photo Supply Company of 202 West 40th Street, New York City. They have placed on the photographic market a group of products that have been known and used by photographers everywhere for over 25 years. Among these products will be found the necessary tools for both expert and beginner. A special beginner's kit is listed at \$5.50. Among the regular equipment are such products as Inks, Inking Rollers, Transfer Press, Brushes and many other items necessary for efficiency in making Bromoil prints. For both monochrome and color Berlett offers these Bromoil products. Inquiries should be directed directly to Berlett in New York.

Announcements

A new photographic service is now being offered by Frederick D. Fischer, 44-10 Ketchum St., Elmhurst, N. Y. Mr. Fischer offers the bromoil transfer prints from your own negatives at attractive prices. Monochrome prints in sizes from 5 x 7" to 11 x 14" are available at prices from \$4.00 to \$10.00. Beautiful 3-color prints from Kodachrome cut film or 35mm. frames may be had in sizes up to 11 x 14". 3-color separation sets are also available from your Kodachromes at prices ranging from \$1.50 to \$5.00 depending on the size.

The National Camera Exchange, famous Minneapolis, Minn., photographic supply house, is now holding its annual clearance sale, featuring many amazing values in cameras, lenses and other photographic equipment. Check over the listing of some of their specials on page 765, you'll find it interesting.

The Jack Schiff Camera Exch., of 55 Vesey Street, N. Y. C., is extending, free of charge or obligation, the use of its darkrooms to the photographic public. These darkrooms are fully equipped with trays, sinks with hot and cold running water, enlarger, and all the necessary equipment for developing, en-

(Continued on page 763)

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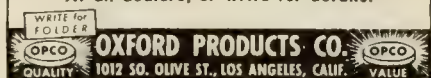
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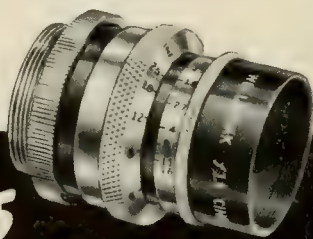
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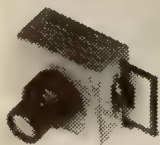
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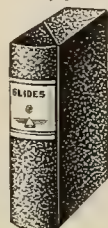
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(Continued from page 761)

larging, and printing. No cost—no obligation—just enjoyment for the camera fan.

A new catalog has just been issued by the Kalart Company of Stamford, Conn., manufacturers of the Kalart Speed Flash and Lens-Coupled Range Finder. Measuring 5½ x 8 inches, the book features outstanding photographs which have won prizes in past Kalart Speed Flash contests. Printed on heavy coated stock, reproduction of the photographs is excellent. More than 40 illustrations are included in the twenty-page flash book. By consulting this manual the photographer is able to select the proper synchronizer and battery case best suited for his camera or cameras. Several pages are devoted to illustrations showing Speed Flash models on popular cameras. Copies of this new catalog may be secured by writing direct to the Kalart Company, 915 Broadway, New York City, or to Stamford, Conn. There is no charge for this catalog but quantities are limited.

Welcome news to flash photographers are the new list price reductions in the Wabash Superflash line recently announced by Mr. A. M. Parker, President of Wabash Photolamp Corporation. Most important reduction is the new 11c list price of the midget bayonet base Press 25, dropped from 15c. This teams the midget bulb with the smallest standard size flash bulb, the No. 0, as two 11c flash bulbs that have power and punch to cover almost 95% of the average amateur picture-taking requirements. In announcing the reduction, Mr. Parker commented that widespread popularity of the midget Press 25 and increased facilities for mass production made possible the new low price. Also reduced is the Blackout Superflash from 60c to 50c list. All reductions effective October 1, 1941. A new Wabash Exposure Bulletin brought up-to-date as of October 1st, lists all of the new Wabash flash and flood bulbs for color, the new Blackout Superflash, and all other Wabash photolamps. Complete exposure data on their use with all available films for black and white and color flash photography, is included. The new Bulletin No. 740P can be had by writing the Wabash Photolamp Corp., Brooklyn, N. Y.

The Society for Visual Education, Inc., has developed, within the last eighteen months, a library of more than 10,000 2"x2" Kodachrome slides designed to serve schools, churches, and the professional and amateur photographers who wish to add to their collection of color slides. Cataloged attractively under such subject headings as: The Fine Arts, Social Studies, Sciences, Sports, National Parks, Literature, Religion, Nature Study for children, and many more, these natural-color slides may be obtained in cardboard Ready-Mounts or bound between protective glass in the S.V.E. slide binders. Ideal for programs, entertainments, educational and religious groups. Write for latest catalogs and information.

If you are looking for a useful, attractive and inexpensive gift for a Kodachrome fan this Christmas, don't overlook the Diamond Dee Slide Viewer. It has an adjustable focus and is priced at only \$2.50. Write the Diamond Dee Studios, 218 S. Wabash Ave., Chicago, Ill.

DECEMBER, 1941

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Within close range of the town there is opportunity for golfing, swimming, boating (in land-locked Newport Bay, nine miles to the north), surf-boarding (in the smooth-rolling combers at San Onofre, a few miles south), or horseback riding into the rugged hills behind the town.

The picturesque quality of the setting of the town is demonstrated by the fact that it has been for years

one of the favorite and most versatile location spots for Hollywood production units. The rocky cliffs of Laguna, its smooth yellow beaches, its lofty hills have done service for such diverse locales as the French Riviera, the Maine coast, and the South Seas. For the photographic student, the advantage and inspiration of easy access to such fine pictorial backgrounds is obvious.

Although the so-called "Basic" course may be completed in less time, students are wise to plan on devoting at least two weeks to their sessions at the Mortensen School. A wide variety of accommodations are available, adapted to all tastes and incomes, from small cabins to excellently appointed modern hotels and apartments.

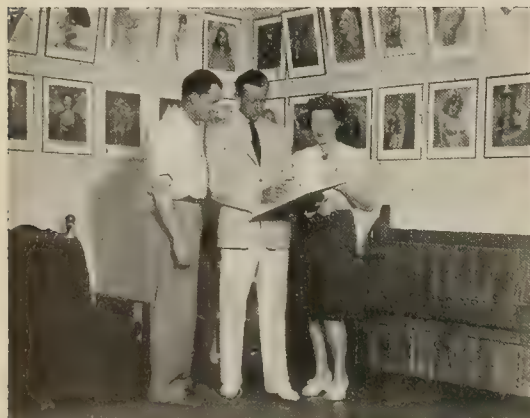
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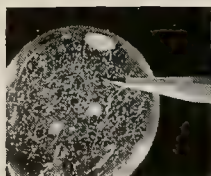
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"PRESS
25"**

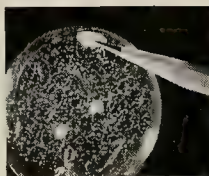
Chances are overwhelming that any flash picture you may wish to take can be *more efficiently* flashed with either of the two Superflash bulbs pictured above. Both are powered to amply care for all ordinary and most extraordinary flash shots. Both have each and every one of the exclusive Wabash features that have made flash picture-taking with Superflash so easy, sure, safe. Listing at only 11¢ each—whether you buy one or a dozen—both are the lowest-cost bulbs of their sizes. Wabash Photolamp Corp., Brooklyn, New York.

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CAMERA CRAFT

A Photographic Monthly

Published by Camera Craft Publishing Company, 425 Bush Street, San Francisco, California
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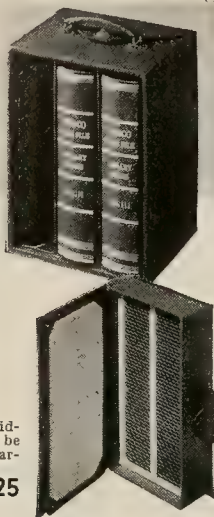
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Correspondence

Debate Continued

Dear Sirs:

The article by Mortensen was splendid! No better person could have been found to defend the bromoil process, . . . for Mr. Mortensen is a man who always proves himself a master both in the field of letters and in the field of art.

I note that Mortensen accuses me of having prejudices against the processes. This is not strictly true: my bias is chiefly against the **bromoil** process, because I have (as he himself says) seen so many poor bromoils and so few good ones in the various salons and exhibitions. Processes such as resson and carbro arouse my sincere admiration, because I have seen so many good prints in this line compared to the few poor ones. If the bromoil process is so difficult and arduous that it takes a veritable magician to turn out good results in it, I cannot see the point of recommending it as a step in advance of work done with bromides and chloro-bromides.

The result is what counts, after all. If Mr. Mortensen is willing to let me use my glossy and lustre bromides, I am more than willing to concede the bromoil to Mr. Mortensen! We will both be satisfied.

Yours very sincerely,

John Gibbs Holyoke

Pasadena, Calif.

Dear Sirs:

In reading articles by Holyoke, Mortensen, Barrett and Miss Newhall and the letter by Miss Grenzbach in the Correspondence Column, etc., I note one thing. The writers leave around in a welter of technique, glossy paper, bromoil—in relation to whether or not a photographer is a photographer.

In my humble opinion they are just scraping the surface of the problem. It is much more a matter of how a photographer **thinks** rather than the technique he uses. (Although I will admit technique in many cases **reflects** the photographer's **thinking**.)

In other words while the type of articles you are running are extremely good and thought provoking, I believe the authors are building a skyscraper by starting at the top without giving any real thought to the foundation. After all, in American creative art there is no law (so far) about what we can or cannot do. It all depends on ourselves, how much we know, our richness of experience and how much we have developed our sensitivity toward our particular field.

Sincerely yours,

Joe Munroe

Detroit, Mich.

(Continued on page 9)



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to the public

and the retailer.

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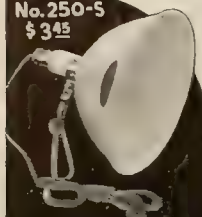
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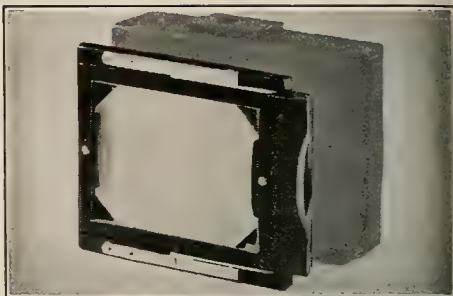
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CAMERA CRAFT

(Continued from page 7)

Dear Sirs:

In the December, 1941 issue, Miss Virginia Winter Grenzbaach comments on my article "Photography: What Now?", and on a later article by Miss Nancy Newhall. I conclude from a consideration of the full text of her letter that she is in substantial agreement with me, but one point she makes seems a little unfair both to Miss Newhall as well as myself.

She states in her second paragraph that while I stand for beauty and Miss Newhall stands for Purism (I am sure these are synonymous, not opposite terms) we do not back up our arguments with our own prints so she can judge our ability as technicians, and presumably decide whether we are competent to write on the subject.

I wish heartily that I might have been able to send with my article a collection of my own work which would be the epitome, the alpha and omega, as it were, of all that is beautiful in photography today. Only such a perfect collection would suitably illustrate a plea for the ultimate in beauty. Doubtless Miss Newhall would be pleased to have her work considered the peak of purist activity at the moment. But since no one individual can hope to approach such a goal, it is hardly fair to judge ones philosophy of photography on the basis of ones photographs.

In other arts the critics and thinkers and writers are not expected to be the best performers. In music, for instance, Deems Taylor and Olin Downes are two most distinguished writers and critics, and Mr. Taylor is a composer of some note, but no one expects them to be virtuosi. Lawrence Gilman, now deceased, was recognized as the greatest authority on Wagner of our day, yet he never conducted or sung a role in a German Opera.

I do think it is fair to expect that photographic writers should have had sufficient practical experience to know the limitations of the medium and to be able to know good work when they see it. They ought also to be familiar with the best current work in the field of pictorial photography. We must trust the editors of our magazines to judge the competency of their writers and the value of their opinions. In this I think we may all agree they are doing a good job.

Yours very truly,

Nestor Barrett

San Jose, Calif.

Club Notes

Forthcoming Exhibitions

Second Annual Flickertail Salon of Photography, sponsored by Minot Camera Club, of Minot, N.D. Address H. A. Smallwood, Salon Chairman, 401-5th Ave., S. E., Minot, N.D. Closing date January 10, 1942. Entry fee \$1.00, limit 4 prints. Feb. 1 to Feb. 8, 1942 at the Minot High School.

(Continued on page 51)

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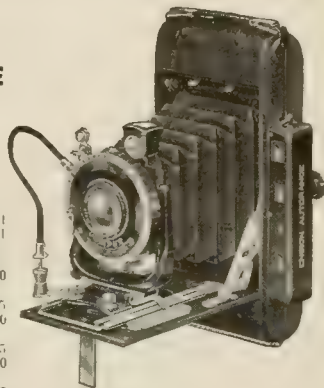
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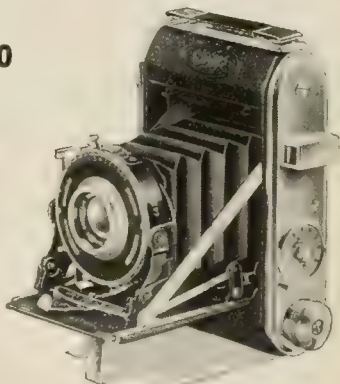
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Mediabrome - A Control Finishing Process

Thomas O. Sheckell

IF WE could get into our original negative everything that we think we need to make a picture of our subject, there would be little need of control methods for amateur photographers. But we cannot always do so. How many times do we find the set-up we want; the light is good, interest pattern, and contrast; those elements that go into the making of a good picture, are all there, except for the sky; and the sky is a blank. Oh! for the clouds we had yesterday. But clouds have a habit of being other places than where we want them.

I think that we amateurs are all purists at heart. We love to get into that negative all the elements of a good picture and we are ever so proud of it when we do so. We are proud of a straight printer, as we call it: one that makes it much easier to turn out duplicate prints as we want them.

I for one feel, however, that the final result is the objective to be attained. The print's the thing. And if I want a different sky in my picture, or clouds in what was a painfully bald-headed sky when I made my negative, I feel at liberty to make my picture as I want it. My camera and my technique are mere tools in the process of picture making.

That I may be able to modify my skies as I wish, I have made and continue to make cloud negatives as opportunity affords, to be used in printing in the sky of just such pictures. It is not a difficult job to do. When enlarging, the clouds are superimposed where they are needed. That is one method of obtaining a result.

There is, however, another method of modification of your photographs that may appeal to many pictorialists: it is Mediabrome, and is in



Figure 1.

Straight print of Figure 2.

some respects similar to the Abrasion Tone process. I find it quite effective and easy to carry out. It is done on a print after it has been dried, with oil paint (the regular opaque oil color employed by painters) applied with a tuft of cotton, and smoothed and rubbed to the desired tone with another piece of the same cotton. Highlights are accented with a piece of kneaded eraser.

In describing this method of control, which I have used for a long time, to a fellow judge at an International Salon where we were serving some time ago, he told me that it was the same as Mediabrome, a method used very effectively by Mr. Leonard Misonne in producing some of his dramatic sky effects which many of us have long admired.

The requirements for this method are very simple and inexpensive. They can be purchased for a few cents in an artist's materials supply store, the cotton at any drug store or the Five and Ten. All you need is:

A tube of Ivory Black Oil Paint

Some Cotton

A Kneaded Eraser.

The print to be worked on needs no special preparation, other than the usual method of print making, and prints on such papers as Velour Black DL or other smooth or slightly grained surfaces are best. Real smooth or glossy surfaces are not adaptable to it. I usually anticipate the use of the medium on a sky by keeping the sky portions of the print as white and free from tint as I can in making my enlargement. The same is true in making portraits, where I want to work up the background, I try



"Pines of Bellaire"

Thomas O. Sheckell

Figure 2.



Figure 3. Straight print of Figure 4.

to keep it light, so I can apply the tint as I want it. I want the print otherwise fully printed and developed, a little on the contrasty side. After making and drying the print we are ready to apply the oil paint. No medium or sizing of the print is necessary.

For convenience, squeeze a little of the Ivory Black oil paint on a small plate, saucer, or a piece of glass. An inch of the paint as it is squeezed from the tube will be all that is needed for a number of prints. With a tuft of cotton smear some of the paint on the portions of the print to be worked on, with a circular motion. Work around or leave spaces for clouds, and work right over the trees or pattern of your picture that cuts into the area of the sky being toned. Do not despair at this stage of the proceeding at the messy look of your print. You cannot hurt the print, and the paint can be entirely cleaned off the surface with a little turpentine, without injury to the print.

Now, with another clean tuft of cotton and likewise working in a circular motion, vigorously rub the paint, smoothing it out until it is just as smooth and delicate as required. You will be surprised how near you can match the tones and the texture of your print. The tint applied will probably be a trifle warmer in tone than the rest of your print, which is not at all objectionable and lends a warmth to the otherwise cool tones of a black and white print. Discard your cotton pads frequently and use fresh ones, where you want to lighten the tint.



"Ostentation"

Thomas O. Sheckell

Figure 4.

Now, with a fresh tuft of the cotton and considerable pressure, lighten areas where you want clouds, or highlights, blending the edges of such highlights to avoid harshness. When you have smoothed it up as you see fit, pick out the highlights with the kneaded eraser, working it into such shape as is best suited to your needs with your fingers. You will find that you can work the eraser in various shapes with little effort, flattening it out for cleaning up broad areas, and pointing it to help pick out highlights on branches of trees, buildings, or on the sail of a boat. As the eraser lifts the oil paint from the print knead the paint into the rubber by working it with the fingers. Avoid redepositing the oil paint on the print with the eraser for when you again rub it with the cotton it will cause more paint to adhere in those places, losing the smooth, even appearance of the tint in your picture. As a final last touch, go over the places worked on with a fresh piece of cotton, softening the edges without losing the snap of the accents in your highlights.

The tone so applied will dry in a few days, and even after a few hours will be dry enough to permit mounting. While it will withstand considerable handling, I recommend that the surface of a print so worked up be protected with a cover sheet of some plain white paper, or tissue paper, fastened to the back of the print or the mount near the top, and folded over the face of the print. Such a protective cover sheet can be folded back when the print is being displayed or exhibited.



Figure 5. Straight print of Figure 6.

If the slight warmth of tone is objectionable, you can make a copy negative of the finished print on commercial film, of the color-blind type, from which you can make such additional duplicate prints, as you may wish, and which will need no work on the print other than the usual spotting.

While I use Mediabrome mostly for modifying the skies of landscapes, tree subjects, marines, and such pictures, I find it a good method of darkening or subduing too strong highlights in some pictures, or darkening corners of a picture, or strengthening shadows; in fact most prints can be helped by a thoughtful use of the control in simplifying and finishing the print.

In portraiture it is a helpful way of introducing a little variation into a light background, or lessening the pattern of a shadow cast on the background. If used on a small brush I find it helpful in spotting even glossy prints.

Matching the tint of prints toned to sepia or blue is not difficult, but requires a little patience in testing until the correct shade is found. Various tones of brown or sepia can be produced by mixing some burnt-sienna oil paint with the ivory black, and some permanent blue added to the ivory black will render a blue tone that will duplicate the blue tones obtained by the chloride of gold-thiocarbamide toning process.



"Invincible"

Thomas O. Sheckell

Figure 6.

The question may be asked, "Does one have to be an artist to make mediabromes?" No, he does not have to be an artist. But when it comes to the work of putting in clouds, one has to have a reasonable knowledge of cloud shapes, and the judgment of where to put them to best improve the composition of the picture. Artistic talent and taste help in the modification of pictures. Anyone with the patience to follow these instructions and experiment a little with this control process can materially improve his pictures by reducing too strong highlights, modifying and rendering much more interesting blank and chalky skies, subduing highlights too near the borders of his picture and thereby accenting more forcibly the point of interest in his picture.

However, when the photographer attempts to draw in clouds or other objects in the picture, he must see to it that the illumination of the clouds be from the same source as for the rest of the picture, that they are correctly placed, and formed.

I have tried in the illustrations used with this description of this simple control process, to show the straight print from my negative, and the result of applying the method to the same subject. The time employed in applying the oil tint and finishing the job was about five minutes. It is not a laborious job nor a difficult one. You can judge for yourself whether it is effective in improving the pictorial quality of the picture.

What Paper Shall I Use?

R. Manning Hermes

Part Two

IN Part One of the present series we noted that photographic papers could be divided into two general classes—those whose characteristic can be designated as “short-toe” and those whose characteristic can be designated as “long-toe.” As a result of this distinction we set out two principles of choice of paper.* We saw these principles in action: a print from a heavily exposed negative on Brovira was far superior to a print from the same negative on Kodabromide. On the other hand, from a thin negative Kodabromide gave better results. These conclusions were offered in Part One without our attempting to justify them. In this Part, let us look to the why and wherefore of these Principles.

Let us consider a group of objects: A, B, ..., G of which the darkest is A, the brightest is G, and the intervening objects are such that the gradation in brightness appears to be uniform from A to G. Now this means that the light reflected from each is a constant, say k , times the light reflected from the preceding object.⁵

If we photograph these objects, the exposure of the image of each on the film would be, within working limits, proportional to the light reflected by each object.⁶ Hence, the exposures would be in constant ratio, k , and would plot, on logarithmic paper, into the points A, B, ..., G of Fig. 1. Notice there that the logarithmic plotting locates these points uniformly along the x-axis, i.e., the line OX: the exposure represented by

* PRINCIPLE I: A heavily exposed negative yields the best print on a short-toe paper.
PRINCIPLE II: A thin negative yields the best print on a long-toe paper.

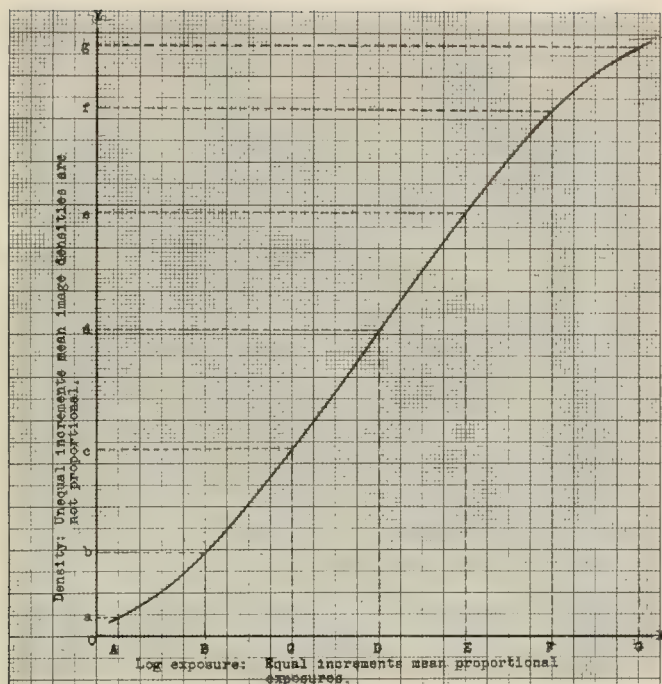


Figure 1. Typical negative characteristic curve. If brightness range of subject is beyond limits of film latitude, gradation is lost in both highlights and shadows.

the distance OB is k times that represented by the distance OA, that represented by the distance OC is k times that represented by OB, etc.

Suppose now that our film has the characteristic curve shown in Fig. 1, and that our exposure is as indicated by OA, ..., OG. The exposure of A falls on the toe of the curve, as does B. C, D, and E are on the straight line portion of the curve. F and G are on the shoulder. The corresponding densities are Oa , Ob , ..., Og . Bear in mind that the greater the density (i.e. the further that a point on the curve is above the x-axis) the blacker is the emulsion.

It must be remembered that density is log opacity, where opacity is a measure of the light stopping property of the negative.⁷ Since density is logarithmic, it follows that if the negative image of A is to transmit k times as much light as does the image of C, etc., the points a, b, ..., g should be equally spaced. But due to the deviation of the curve from a straight line, this is not so. The difference $Ob - Oa$ is considerably less than the difference $Od - Oc$. Likewise, the overexposure of F and G causes $Og - Of$ to be much less than $Od - Oc$.

When the negative is put in the enlarger and a print is made therefrom, the exposures of the various images on the paper are directly proportional to the density of that image on the negative. Hence, the ratio

of the exposure of the print of B to the exposure of the print of A will be much less than the ratio of the exposure of D to the exposure of C. If our paper were such that proportional exposures produced proportional densities, that is to say, if its exposure curve were a straight line, then the final print would show very little difference in contrast between A and B, a greater difference between B and C. The result would be loss of shadow detail. At the other end of the scale, there would result grave blocking of the highlights.

Fortunately, our papers have characteristic curves, too. Moreover, the curves of different papers differ in shape. This is readily seen in Fig. 2 which shows the characteristic curves of Brovira, soft, and Cykora, soft. (The curve for Cykora has been translated to the left so as to coincide with the Brovira curve at its end points.) Notice how rapidly the Brovira curve increases in density with increasing exposure, until the exposure reaches P. Subsequent increase in exposure does not cause such rapid increase in density. The Cykora curve, on the other hand, does not attain its greatest rate of increase of density with respect to exposure until the exposure reaches the value Q; then the rate of increase of density falls off rapidly with further increase of exposure. A characteristic curve of the same type as Brovira can properly be termed a short-toe curve. One of the same type as Cykora can well be designated as a long-toe curve.

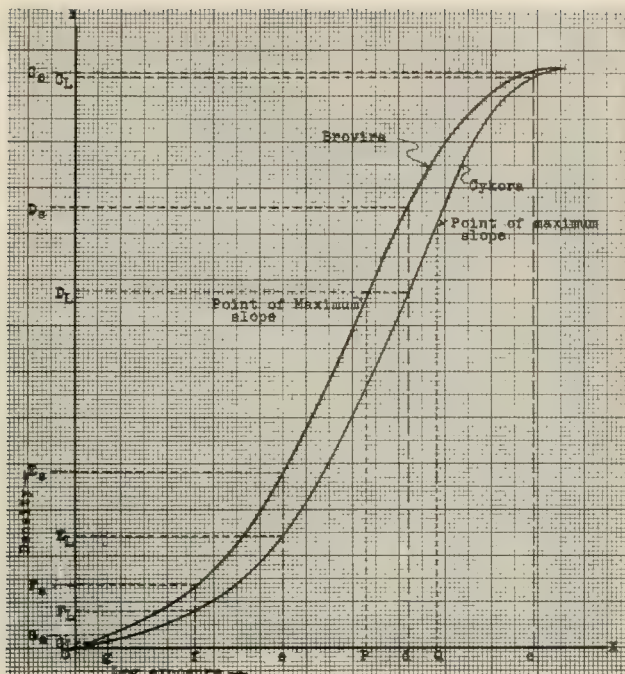
The short-toe curve lies above the long-toe curve. We can readily interpret this as follows: Let us assume in Fig 2 that Og is the minimum exposure necessary to give us our faintest highlight on either paper, and that Oe is some greater exposure. Now the ordinate, that is, the distance from the x-axis to the curve, of the Brovira curve is greater than the ordinate to the Cykora curve at the point e. Since the length of the ordinate is the density of the silver deposit, it follows that the Brovira is darker for the exposure Oe than is the Cykora. Because our final print is the result of a set of different exposures lying along the x-axis, the key of a print on Brovira will be lower than that of a print on Cykora.

This interpretation finds application in the rule stated in the previous article* for determining the type of characteristic curve of the type of paper you are using. In general, the shorter the toe of the curve, the lower will be the key of the print.

Let us return to our original set of objects, remove A and B, expose as before, and develop so that the density range of the negative equals the exposure scale of the paper. The resulting negative is overexposed since part of the image falls on the shoulder of the curve. (Fig. 1.) When the negative is printed, the densest portion (the image of G) gives minimum exposure, the thinnest portion (image of C) gives maximum exposure. The exposure of each image is as shown in Fig. 2 at g,, c.

If this negative is printed on a short-toe paper, the resulting image densities are Gs,, Cs. It will be noted that these densities, while not uniformly spaced, are fairly well spread along the line OY. The eye will,

* A full scale print is made from the same negative on Kodabromide and on the paper in question, and the middle tones are compared. The lower the middle tones on the paper tested, the shorter the toe.



then, see the gradation as being approximately uniform. This is the desired result since the original objects were of uniform brightness gradation.

Printing the negative on a long-toe paper, however, gives the resulting densities GL,, CL. Here, the gradation in the images of G and F is very small in comparison with the gradation in the images of D and C. The highlights tend to be blocked up when we print a heavily exposed negative on a long-toe paper.

It is a comparison of these results that leads to the PRINCIPLE I stated in Part One: If the negative is heavily exposed, better print results can be had by printing on a short-toe paper.

Had we removed F and G, photographed the remaining objects as before, the resulting negative would have been underexposed, and the exposures of the images in printing would be as shown in Fig. 3 at e,, a. If the print is on a paper having a short toe, the resulting print densities are shown at Es,, As. Here, while there is good gradation in the highlights, as shown by the length of Ds - Es, the contrast between the images of A and B is so slight that the shadow detail is largely lost. Printing on a long-toe paper gives the image densities shown at EL,, AL. In this event, the steps between resulting images are reasonably uniform, a little compression of tones occurring in the highlights but the rest of the tones

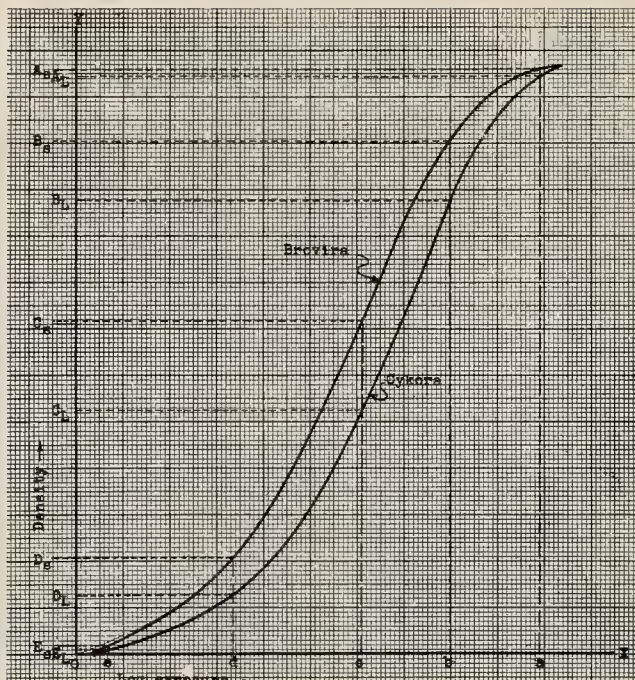


Figure 3. Note that the distance $B-A_s$ is greater than the distance $B-A_L$. This means more detail in the shadows.

being well spread. Hence we arrive at PRINCIPLE II: If the negative exposure is a minimum, the best print can be obtained by the use of a paper having a long toe.

These results can be well summarized thus: With any given negative, maximum gradation in the highlights can be obtained by printing on a short-toe paper; maximum gradation in the shadows can be obtained by printing on a long-toe paper. Of the two resulting prints, the former will be of lower key than the latter.

PRINCIPLES I and II are the governing rules for straight full scale printing. By applying them, you can radically simplify your negative making.

Equally important Principles can be reached in a consideration of the problems of full scale, high key and low key prints, and of short scale prints. This consideration we must reserve for Part Three.

(To be continued.)

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Why Not Try A “Still” Sequence?

Thomas Welles

WHEN you thumb through any of the “picture magazines” (Life, Look, Pic, or what have you), which pictures do you usually turn back to, and sort of roll around on your tongue, as it were, like you would a sip of fine Sherry? Aren’t they the human interest pictures—in *series*?

And just to clinch the argument (if there be any) what first attracted your eye to this article? The title? I doubt it. Wasn’t it the *series* of pictures used to illustrate it?

Well, then, why not apply the technique to the family album? There are any number of events in your everyday home life, you know, that all but cry out to be presented in series form, rather than as isolated happenings. The group of pictures shown here is offered only as a suggestion—a sort of catalyst, to start you thinking in terms of the many series possibilities lying fallow all around you.

In making series pictures, you will probably seldom find it possible to make your shots in sequence—that is, in the same sequence that they will appear in your album “story.” That is of no importance, however, just

keep shooting away, and, when you have the finished prints, they will almost arrange themselves in story-telling order, with little or no reference to the order in which the exposures were made.

For example, the pictures shown here were shot in exact reverse order from their presentation. As the exposures were made, the model (who happens to be my young daughter, and who should, therefore, have by now become somewhat blasé where cameras are concerned) grew increasingly bored with the procedure, and less and less interested in watching the intermittent sunlight of a synchronized flash. But no matter—"the story's the thing," and the story was "told" by simply reversing the sequence.

A flash synchronizer on your camera isn't an absolute necessity, of course, but it is a tremendous help in shooting pictures of this type, especially where the subject is a child. Children simply wilt down under prolonged exposure to flood lights; they become highly uncomfortable, and this, in turn, makes them self-conscious—which is exactly what you *don't* want. With children, at least, it is better, lacking a synchronizer, to confine your sequence shots to out-of-doors activities. And how many of these there are, that lend themselves to series presentation! The sand-box provides one never-ending source of pictures. First, there is just sand, then a "castle" under construction, then the completed "castle," and so on.

And what about that Sunday picnic? One picture could show your subject reaching eagerly into the lunch basket, the next, extracting a "drum-stick," the next, eating said drum-stick with gusto, and the last, leaning against a tree with eyes closed—too full and relaxed, apparently, to even notice the camera.

The main thing to watch, in making an interesting series, is, I think, to not include too much territory either in the series or in the individual pictures. For greatest effect, the subject should be doing *one* thing in *one* place, and there should be very little in the way of background to distract attention. In other words, use a simple background, and *move up close to your subject*.

Certain sports lend themselves admirably to series presentation. Among these might be mentioned aquaplaning and fishing. In the former, the final, and almost certain "spill" will give the "O. Henry twist" to your picture story, while, in the case of a fishing series, the same effect can be achieved by having your subject either look dejectedly at his empty hook, or stretch his arms wide to show the size of "the one that got away."

Then, too, a series showing the "girl friend" learning to paddle a canoe is a natural. And it's easy to shoot: all you have to do is park yourself and camera amidships and aim astern. (Note: First insure your camera—the g.f. just *might* "catch a crab" with her paddle, you know!)

About the accompanying pictures, if you're interested in exposure data and such, they were all shot at 1/200 second by synchronized flash in a 4 x 5 Speed Graphic, lens stopped down to about F:18. The film used was Eastman Super Panchro Press.



Figure 1.

"Wait until I tell you the latest gossip, my dear." In an album sequence you may use captions, or not, as you wish. They really aren't necessary if the series is carefully thought out.



Figure 2.

"I got this from Jean, but she made me promise not to tell a soul. I know you won't give me away, will you?"



Figure 3.

"I could hardly believe it myself, but Jean says it's an absolute fact!" Captions, if used, are often more effective if they merely suggest, leaving much to the reader's imagination.



Figure 4.

"I know you won't tell a single soul, my dear—but I knew you'd love that juicy tid-bit."

New Honors For The Camera

Flodden W. Heron*

UPON first thought the average person thinks that the great value of the camera in the present war is concerned with photographing cities, grounds, areas, ship and troop movements. It is true that in these and allied fields the camera has and is playing a very important part. However, there are two additional and highly valuable services that the camera is rendering, one to combatants and the other to non-combatants.

The first of these two unique functions has to do with the postal service. Late statistics in Britain show that one Post Office worker in every three has joined the Navy, Army, Air Force, Civil Defense services or Home Guard. Nearly a thousand have been killed on active service or in air raids. To fill vacancies 44,000 extra women have been recruited. The Post Office must carry on.

With several hundred thousand men in distant fields the transportation of mail to and from these men and the home land becomes a serious problem, but again the camera has come into use and has actually solved the task of both transporting and handling of mail, and this at a tremendous saving in money and labor cost.

What are termed as "Airgraph" letters, and mechanics for their handling, have been created. These airgraph letters and the system first came into use for transferring war-time mail communications from Cairo to Britain. A special card is provided (about the size of a regular post-card) and on one side only of this a soldier places the address of the party to whom he is writing, together with his message. Considerable can be placed on a post-card with a little care. The airgraph letter (as these cards are termed) is deposited at the Post Office.

Here the cards are clipped upon a wheel about six feet in diameter. This wheel carries the cards, with side carrying the message facing out,

* Our readers will remember previous articles by Mr. Flodden W. Heron, well known bibliophile, of San Francisco.—Ed.

while the wheel is slowly revolved bringing cards in a steady stream before the camera that automatically photographs the card on microfilm. New cards are continuously inserted as those passing the camera are photographed and thus the contents of thousands of cards are on a film which is developed and the coil sent via air to England. From these the deft hands of women operators reproduce the message, on a card of the same size upon which the sender wrote the message in Cairo, and the card is delivered by carrier to the addressee in the usual letter fashion. As an indication of the use and value of airgraphs 4,500 ordinary air mail letters, which normally weigh about fifty pounds, weigh less than one pound in film form.

The plan originally required the sender to personally call at the Post Office and hand the letter over the counter, no postage being required. Some of the girls at home writing to sweethearts did not like this publicity and others objected to the bother of going to the Post Office. So the plan was amended to allow one to write the message and drop the card in a mail box, but such method requires that a 3d stamp be attached to the reverse of the card. Then what had been a free writing service began to bring a revenue and this has offset both cost of handling and equipment.

This new war-created system is operating so successfully it is now proposed for operation on business mail between Britain and America. It will mean a great saving in labor and tonnage and likewise a reduction in postal revenue. Philatelists will regret to see the curtailment in the use of postage stamps, already greatly reduced through machine stamping.

The second of the two new services by the camera is in connection with the preservation of the contents of rare books and manuscripts that are now in Britain. Some of the world's rarest literary material is owned by the British Museum. These books and manuscripts have been evacuated into one of the large abandoned Welsh coal mines. Here the necessary equipment has been installed and a group of librarians are continuously employed photographing page by page the rarest of documents. More than twenty miles of microfilm are made each week and the finished rolls are sent to America. Photographs of over one million pages have already crossed the Atlantic without a single loss. The camera is here rendering an invaluable service to future generations. Some feel that our own Declaration of Independence and other priceless documents should be microfilmed and copies deposited in interior cities.

Of course microfilming of newspapers and such bulk material for filing has been going on for some years, but the war has brought to the camera additional credits for the above services that are not only unique, but invaluable for all time. It is only a question of time when the bulky telephone directories and their great cost of printing and paper will be abandoned, for a small box attached to the phone, containing microfilmed records, will furnish all numbers quickly. A home library of 1000 books will cost only fifty dollars and will not require the popular five foot shelf space. All library buildings and schools in cities will eventually be equipped for using microfilm and it will gradually come into home use.

The camera has made possible these great services to mankind through microfilm, the wonder product of the science of photography, and its future holds tremendous possibilities.

Preparation And Preservation Of Easily Oxidized Developing Solutions

R. H. Behrens

THE problem of preparing and preserving developing solutions free from excessive oxidation is of concern to any photographer who recognizes the need for meticulous care in securing consistently good negatives. Developers are reducing agents and for this reason readily oxidized in contact with the air. This may often result in a serious loss in developing power.

A number of methods have been employed in an effort to minimize this tendency. Large concentrations of sulphite, bisulphite, and metabisulphite are commonly used in the developing solution to block, by chemical means, the oxidation of the developing agent. Two and three solution developers are often utilized as a means of separating the activating and developing constituents while care is advised to keep the surface of contact between developing solution and the air to a minimum in order to cut down oxidation effects.

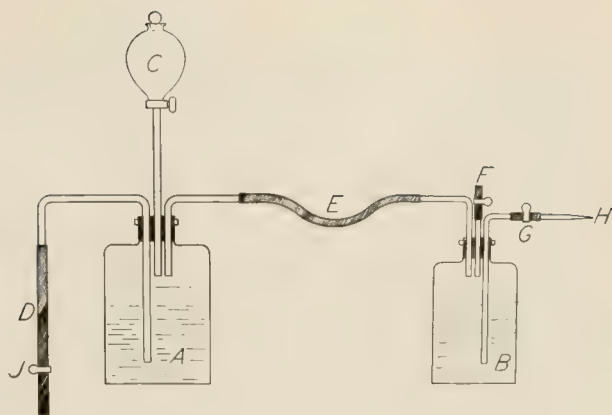
Any method of keeping the developing solution from contact with the air during preparation and storage would make a strong appeal to those who have learned to know the fine gradations and printing qualities of the pyro developed negative or the fine blue-black tones of the amidol developed enlargement. To the busy amateur or professional photographer who wants to make the most of his time in the darkroom the advantage of the single stock solution of his favorite developer is apparent.

A number of successful experiments in the preparation and preservation of developing solutions, using simple and inexpensive apparatus, should suggest means of providing the necessary protection from oxidation to those who wish a solution to the problem.

Preparing Solutions in an Atmosphere of Heating Gas

In this experiment an atmosphere of heating gas occurring naturally in the California oil fields and piped to the cities nearby was used to displace air in contact with the solution in preparation. The apparatus consisted of two brown glass bottles and a piece of chemical apparatus

Apparatus for Preparation and Preservation of Developers with Natural Gas and Air freed of Oxygen.



known as a dropping or separatory funnel connected as shown in the diagram with quarter inch rubber hose and glass tubing, rubber stoppers and hose clamps, all obtainable from chemical and pharmaceutical supply houses.

The initial experiment was conducted using a pyro formula very susceptible of oxidation. This formula was reported by L. P. Clerc in his "Photography Theory and Practice," 1937, page 259, as one which had been recommended by the Eastman Kodak Company for use in developing its film. This formula was selected because of its well known tendency to deteriorate in a few minutes exposure to the air. One liter of this solution contains:

Sodium sulphite, Anhydrous.....	4.5 gms
Sodium carbonate, Anhydrous.....	4.5 gms
Pyrogallol	1.8 gms
Water to make.....	1 liter

This solution was prepared 10 times the strength given in order to permit of economical storage and preparation of stock solution.

The procedure followed in the preparation of this solution follows.

1. 17.5 grams of pyrogallol were poured into the bottom of the dry bottle A.

2. Tube F was connected to a gas cock, the stopper in the separatory funnel C removed and the stopcock at the stem of C opened. Gas was permitted to flow freely into the apparatus for 3 minutes. The clamp F was closed and the gas hose detached.

3. The gas hose from the gas cock was then connected with the rubber tube D by means of a short section of glass tubing and the gas permitted to flow freely through the apparatus for 3 minutes venting through the funnel C.

4. The stopcock in the funnel C was then closed and the stopper replaced and all clamps closed. This should have filled all portions of

the apparatus with gas except that portion leading through tube H to the air.

5. A solution of 10 grams of pyrogallol in 200 ml of a solution containing 240 gms of potassium hydroxide was poured into the bottle B and the stopper inserted.

6. A solution was prepared, using distilled water, of 45 gms of anhydrous sodium sulphite and 45 gms of anhydrous sodium carbonate to 1000 ml of the water.

7. The stopper was removed from the separatory funnel and the funnel filled with the soda solution. The stopcock was opened for a slow flow of the solution into the stock bottle and the bottle shaken to dissolve the pyrogallol. The rest of the solution of the sodium salts was then added to the separatory funnel and permitted to flow into the bottle slowly while shaking to permit of good distribution of the dissolved matter.

8. Before the last of the solution had run into the bottle the clamp J was opened on the delivery tube D to cause this siphon tube to be filled by the pressure on the solution in the bottle created by the flow of liquid from the separatory funnel.

9. Before the last 5 ml had flowed into the bottle from the funnel C the stopcock was closed to prevent air from being sucked into the flask by the last fall of the sodium carbonate-sulphite solution.

10. The solution was then placed on the darkroom shelf for use.

The stock solution was withdrawn for use by opening the screw clamp G on the oxygen absorbing pyrogallol-potassium hydroxide solution bottle B and opening the clamp J on the delivery tube so that a fairly slow stream of stock solution flowed out. This enabled bubbles of air flowing through flask B to be deprived of their oxygen so that the gas replacing the solution flowing out might be oxygen free.

In the experiment carried out over 19 withdrawals of stock solution were made in the course of three weeks. Typical and consistently good results were obtained with the negatives developed in this solution. The oxygen absorbing pyrogallol-potash solution was replaced with a freshly prepared charge for each filling of the stock solution bottle. This provides an ample margin of oxygen absorption capacity.

A modification of the apparatus which eliminates the need for the oxygen absorbing bottle B may be made by attaching the tube E directly to the gas cock which is turned on just before the developer is withdrawn. Gas is in this way forced into the apparatus to replace the solution removed.

A repetition of the experiment with an amidol formula used as a stock solution for dilution 1 to 4 yielded results equally satisfactory.

The success obtained by use of natural heating gases might not in all cases be duplicated, particularly when artificial heating gases are used. Experiment or reference to analytical data might prove such gases unusable due to large sulphur compound content. In such cases other inert gases may be used to replace the heating gas. One of these, hydrogen, has much to recommend it.

Preparation and Preservation of Developing Solutions with Hydrogen.

Hydrogen gas may be used to replace natural gas as a protective agent in the preparation and preservation of developing solutions. The procedure

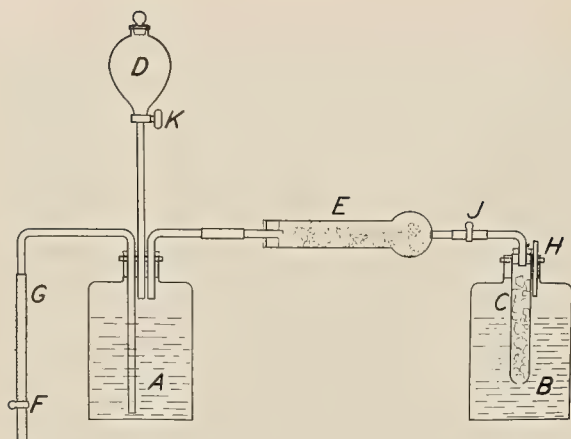


*"Old Mountain Cabin Near Jackson,
Breathitt County, Kentucky"*

*Farm Security Administration
photograph, by Marion Post*

2nd Annual Western Amateur Camera Conclave

of preparation and delivery is identical with that used in the first experiment. A small automatic hydrogen generator was made by heating the bottom of a rather large test tube about 8 or 10 inches in length and blowing a small hole in it. A tuft of cotton or glass wool was placed in position to keep this hole clear for the flow of liquids. Above this a mass of mossy zinc metal was filled up to within about 4 inches of the top of the test tube. Above this was placed another tuft of cotton or glass wool to entrap any globules of liquid which might be carried over into the bottle in which the developer is being made by the vigorous evolution of hydrogen. A rubber stopper with a glass delivery tube was connected with the test tube and this tube placed in a bottle of 20% sulphuric acid. As the acid rose in the test tube and came into contact with the zinc a vigorous evolution of hydrogen gas took place with which the air was driven from the apparatus. When this was accomplished all cocks and clamps were closed. The pressure created by the entrapped gas caused the acid to be pushed out of contact with the zinc through the hole at the bottom of the test tube and into the bottle B. As stock solution was withdrawn this pressure was released and the acid again entered the test tube and a vigorous evolution of hydrogen replaced the stock solution removed. A drying tube filled with soda lime removed any trace of acid which might be carried over by the hydrogen gas. This apparatus was used successfully with both the unstable pyrogallol and amidol developers and is shown in the second diagram.



Apparatus for Preparation and Preservation of Developers with Hydrogen Gas.

The hydrogen generator apparatus offers some advantages over that utilizing natural gas in that the apparatus is not dependent upon the presence of gas cocks and because of the highly inert character of the hydrogen gas so far as the developing solution is concerned.

These experiments indicate the possibility of preparing and preserving readily oxidized developing solutions of all varieties. Other relatively inert gases which do not influence developing solutions might be utilized when ever obtainable. Nitrogen, methane, propane, ethane and butane are sometimes obtainable in cylinders from which they may be drawn with appropriate reducing valves.

A simplification of the apparatus which has successfully operated is the elimination of the gas absorbing bottle or gas generator after sweeping out the air from the apparatus. After mixing the solution in the stock bottle the separator funnel may be pushed deeper into the flask until the delivery tube is within a small fraction of an inch from the top of the liquid. Pure kerosene may then be spread over the surface of the solution carefully to a depth of about a quarter of an inch through use of the funnel. This forms an inert film over the surface of the developer which, if care is taken to avoid shaking or disturbing the bottle, prevents access of air to the developer. Care must be exercised to avoid carrying over kerosene when stock solution is withdrawn toward the bottom of the bottle. The apparatus also requires careful washing with soap and water to remove all kerosene as new solution is prepared.

Solutions of both the pyrogallol and amidol prepared and preserved by each procedure and its modifications were used repeatedly over periods extending through three months with consistently satisfactory results. These experiments suggest that almost any developing solution might be so prepared and maintained over a long period of time with every expectation of success.

The Construction Of A Processing Reel For Large Prints

Neil W. Northey

WITH the coming of the miniature camera, a greater interest in enlarging became noticeable. To a considerable extent, enlarging supplanted contact printing. In fact, enlarging became a necessity instead of a near luxury. At first, minidakers were content to make enlargements of a size approximately that of the contact prints which they had previously been making from their larger negatives. An enlargement of from two to five diameters from a one-inch negative satisfied the egoism of the average worker. But this was of brief duration. It seemed that the only way the minidaker could demonstrate the superior quality of his technique, and to forever and emphatically prove to the world that the diminutive outfit was the only thing in cameradom, he (and often she) had to make bigger enlargements.

Some skeptic belonging to the old school, in a rash moment, said that grain in the negative would prevent the miniature camera from ever becoming practical. How he ever discovered that there is such a thing as grain in a negative has never been explained satisfactorily, since he was never called upon to enlarge from his ample sized negatives to a point where grain would show. Furthermore, it isn't on record that there was a whole lot of grain in the negatives which the careful, old-time worker produced. If it were present, it went unnoticed for the reason that he did not make his enlargements sufficiently large enough to bring it out. Just the other day an old-timer, recently retired, told me with a bit of pride in his voice how he used to make 8x10 enlargements from his 5x7 portrait negatives which "you couldn't tell from contact prints." And, rude as it was of me, I couldn't resist telling him that nowadays if a photographer could not produce nega-



Figure 1.



Figure 2.

tives from which 10-diameter, contact quality enlargements could be made, he was not considered a very good workman.

Perhaps, after all, the one who discovered grain in negatives was some minidaker who was trying to "blow up" his negatives some thirty or forty diameters. For with the arrival of the teeny-weeny camera, we began to hear about fine-grain development, fine-grain films and a number of other things that the old-time photographer thought nothing about. But here is something else. When some of the wide-awake old-timers saw the results that many of the minisnappers were getting, they set out to apply the new technique, so to speak, to their larger equipment, and perchance out-dak the minidakers at their own game. Soon the public beheld with awe, enlargements large enough to cover the walls of huge rooms, and the much-talked-about photo mural industry (or should I say art?) was born.

With the coming of mammoth enlargements, came also the problem of how best to process them. Up to a certain size, it is possible to improvise trays out of shallow boxes lined with oilcloth or other material. It is also practical to thumb-tack the enlargement to a piece of veneer wood, which is rested in a trough, and apply the solutions with a sponge. A better way, however, is to use a reel. I had seen a number of these described in publications but since my ambition, photographically speaking, did not lean toward the making of over-sized enlargements, I gave the articles little attention. One day I found myself with an order for an enlargement that was too large to be processed in the usual way and so I set about constructing a cheap and efficient reel. The result is illustrated herewith.

Such a reel need not be longer than 43 inches, for that width will accommodate the widest enlarging paper obtainable. Enlarging paper is offered in rolls 40 inches wide but some of it is nearer 42 inches. The drum shown is 43 inches long by 18 inches in diameter. This will handle an enlargement 42x54 inches in size, or it will hold 100 feet of 35mm. motion picture film for processing.

The drum was made by cutting out three circles from one-inch boards that were fastened together with cleats to form the required width, as may



Figure 3.



Figure 4.

be seen in Figures 3 and 4. The pieces of screen mold across the circles are about two inches apart. All material for the reel was boiled in hot paraffin. The holes in the circles of the drum must be in the *exact* center. If they are not, when the drum revolves it will strike the tray part of the way around and make it necessary to place its bearings so high to clear the tray that much more developer will be required in order to reach the paper when the short side of the drum comes down. If the drum revolves evenly, it need be only one-half inch above the tray to allow for a certain amount of wrinkling of the paper after it is wet.

How to make a cheap, light-weight yet strong, tray was quite a problem. It was made by utilizing the circles that were left after cutting out the drum. These were widened somewhat to allow for the increase in the size of the drum caused by adding the screen mold strips. The bottom of the tray was made of a cheap piece of linoleum. After it had been tacked in place, the cracks along the ends were painted with hot paraffin to make it water-tight. Note in Figures 1 and 4 that the linoleum extends up on each side as high as is permissible and still leave room for the tray to pass under the drum when the drum is raised. These projections act as sideboards to catch drippings from the revolving drum. The boards forming the ends of the tray are beveled inward along the top, so that drippings will drain back into the tray.

The frame for supporting the drum is made of scraps of boards. The notches for the bearings must be cut just deep enough and in exactly the right place to hold the drum in perfect alignment in the tray. As shown in Figure 4, the drum is raised and held up by supplementary arms while the tray is taken out for changing solutions. When the reel is lowered again, the bearing rod falls exactly into the notches in the bearing arm. Note that when the drum is raised the center of gravity, as represented by the notch holding the bearing rod, falls behind the point where the arm itself is supported by a bolt; and the arms are thus prevented from falling forward. In Figures 1 and 2 may be seen tracks, in which the bottom frame of the tray slides, which bring it into perfect position under the drum, so that it may be removed for changing solutions without trouble in total darkness.



"Americans"

Sam Cocomise, Chicago, Ill.

*Image of Freedom Competition
Museum of Modern Art, New York*

One gallon of developer and the same amount of fixer will be enough. The solutions may be kept in readiness in crocks. Washing of the finished enlargement may be done outside with the spray from the lawn hose if desired, or the drum may be revolved slowly while running water enters the tray. In case the last method is used some means must, of course, be provided to take care of the overflow, such as a floor drain; or the reel may be placed in such a position that the wash water flows out one corner of the tray into the sink.

A good way to dry the enlargement is to remove the drum and stand it on end on one of the solution crocks. The projecting rod which forms the bearing will not permit it to be stood on a flat surface. When the enlargement is partly dry it should be removed from the reel and spread face down on white cloth to finish drying. If it is left on the drum until it is bone dry, the paper becomes somewhat set to the reel, due to shrinkage, and the strips will form a pattern on the paper that is difficult to remove.

For printing the enlargement from large negatives, the writer uses his 8x10 view camera, which he has equipped with an illuminating box, the drum being just the right size to handle a 5X enlargement from an 8x10 negative. Or it will accommodate a 40 enlargement from the full size of a 24x36mm. negative.

Cinema Section

Edited by

William A. Palmer

Shooting The Shussers

Jack Steiger

WHEN summer is over and gray winter days set in don't put your camera on the shelf with the idea of leaving it there until summer rolls around again, for there are many excellent opportunities for movie making during the winter months. Winter sports, particularly skiing, are fine subjects for movies. Skiing provides plenty of action, combined with natural scenic backgrounds. A great deal of the beauty of the mountains would be lost were it not for skis. Skiing is not a "spectators' sport," as is football, basketball, tennis, etc., so movies are about the only way to show others the fun to be had in the snow.

First on the list of equipment necessary is a good movie camera, which should be as compact and light weight as possible. A camera of the magazine loading type probably fulfills these requirements best. Variable speed controls from 8 to 64 frames per second are very helpful, but not absolutely necessary. A 15mm wide angle lens will probably be the most useful; if this is not available the standard 1-inch is next best for all around purposes. The reasons for a wide angle being the most useful lens for ski pictures are:—First, there is less wiggling and jerking on the screen due to camera motion when the camera is hand held. Second, it may be used as a fixed focus lens so that the camera can be put into action more quickly and catch a scene which might otherwise be lost.

Telephoto lenses should be avoided except for following a semi-distant skier down a long slope. For this work the focal length required depends upon the distance between the skier and the camera, and also the size of image desired. A 3-inch focal length lens is perhaps a good compromise. A tripod is not absolutely necessary when using a wide angle lens, but should be used for telephotos. Most amateurs hand-hold their cameras instead of using a tripod. Skiing movies are just like any others, if the camera support is steady, they will be superior. However, when one is on skis it is quite difficult to carry a tripod, therefore use the wide angle lens most of the time. Also, hold the camera as steady as possible. If the photographer is fussy about having steady pictures, and is a good enough skier to carry a tripod, the following arrangement will prove useful. Ordinary tripod legs will sink deeply into the snow so they must be fitted with rings

similar to a ski pole rings. However, the average small camera may be used with quite steady results on a small collapsible light weight steel tripod. The legs are fitted with solid discs of No. 26 gauge galvanized iron, 3 inches in diameter and fastened loosely with cotter pins about 3 inches from the tips. When in use, the galvanized iron discs prevent the legs from digging too deeply into the snow. Have the legs fairly wide apart to attain the maximum stability. When telescoped this may be tied underneath the ruck sack without too much difficulty. A fairly steady camera support may be improvised by crimping a Kodapod or Optipod to the top of a ski pole.

Shots from the ski level while moving are made possible if a mounting similar to the accompanying diagram is provided on one ski. When these ski-level shots are made on a packed surface there is less danger of snow piling onto the camera than if they were made in powder snow. Adequate protection to the camera may be had by using one of the large sized oil silk bowl covers used by housewives when storing food in the refrigerator. A hole should be cut in the center of this, large enough to slip over the lens mount, with the rest of the bag covering as much of the camera as possible. Then place a haze filter over the lens to protect it from flying snow particles.

When using Kodachrome film a haze filter is the only one necessary. This tends to make distant shots clearer and reduces the slight bluishness caused by the strong ultra-violet light usually present in the higher altitudes.

The filters found useful for black and white film are a pale green which helps prevent foliage from photographing too dark, and a light yellow filter which brings out the texture in close-ups of snow.

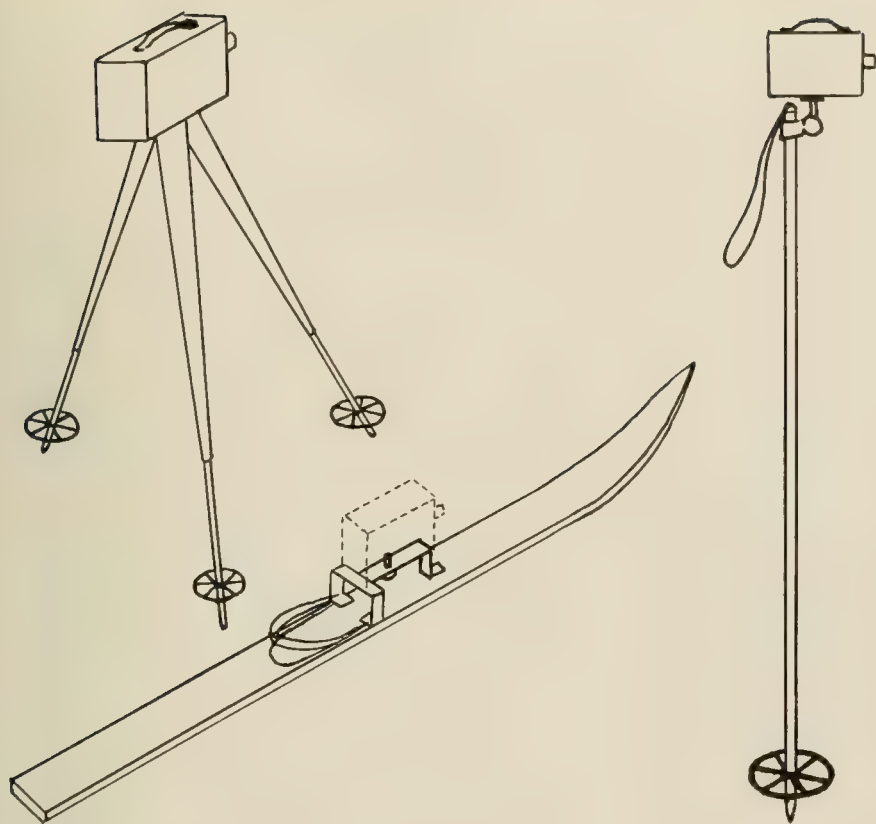
Don't forget to slip a few items into your rucksack for emergencies such as a small pair of pliers, screwdriver, knife, lens tissue or clean soft cloth for cleaning lenses and a roll of adhesive tape.

Occasionally it is necessary to load the camera in the middle of a brilliant snow field. Make your own "darkroom" by having a friend hold a focusing cloth or a parka over you while the camera is open. Be sure to keep the film tight on the reel with one finger and do not draw out any more than necessary for threading.

When taking close-ups, reflections from the snow give sufficient light so that reflectors are unnecessary. Some of the best shots—the kind that make our friends say "ah" and "oh"—are made using back lighting. If a skier is traveling down a ridge or near a cornice, try to get below him and in the shadow so as to get a silhouette with a brilliant plume of powder snow following.

On a bright day, using Kodachrome film at 16 frames per second, the exposure for this shot would be approximately F-5.6 to F-8. This is the type of scene that shows off to good advantage when taken in slow motion. Less change in the color of sunlight is noticed here than at lower altitudes because of the lack of dust in the atmosphere; therefore, there are more hours in the day in which colored pictures can be taken. During the months of January and February the best pictures may be made because of the powder snow which exists at that time; that is, of course, if you don't happen to be so unlucky as to run into storms. Later on, during March and April when bright sunshine is more prevalent, the powder snow has become packed to a fairly hard surface. This also has its advantages such as reflections off a packed or icy surface.

Exposure meters are not very useful in the snow because of the terrific



Camera supports in the snow

amount of reflection thrown off of the bright surface. When one takes a reading from a brilliant snow-covered landscape the needle will probably swing all the way across the dial, which would result in the exposure calculation being F-22 or F-32. With a picture taken at that aperture a sad disappointment is in store because the scene will always be very much underexposed. The only time a meter reading may be depended upon is when taken carefully from a gray card or entirely in the shade. For Kodachrome film at 16 frames per second, the average basic exposure is between F-8 and F-11. A brilliant semi-distant shot would be F-11, and a semi-close-up F-8. It is very seldom that an exposure as low as between F-11 and F-16 is needed with Kodachrome. In the shadows under trees use between F-4 and F-5.6. Actual snowing scenes with no sun showing at all may be photographed at F-2.0. With color film, *underexposure* is worse than overexposure, so if in doubt use a slightly larger diaphragm stop.

For black and white movies a slow film should be used in preference to a fast one. Neutral density filters would have to be used with Super XX; whereas the slower films would not require any. A few good basic exposures for black and white movie films are listed below:

8mm Panchromatic—F-8

Plenachrome or 16mm "Safety"—Between F-8 and 11

Hypan or 8 and 16mm Super X—F-16

The same variations from these basic exposures would apply to black and white film as for Kodachrome. Guard against *overexposure* on black and white films, or the texture of the snow will be completely lost.

It is well to keep in mind the continuity that your finished skiing movie will have while taking the pictures. If a story can be told by the picture it will be much more interesting than the straight "news reel" type of film. One of the simplest stories for ski pictures is that of the chase, where a group of skiers tries to catch one or two others, or "Hare and Hounds" on skis. Other ideas include learning to ski, spills, action furnished by experts, down-hill and slalom races, and cross country trips.

Comedy relief may be furnished by camera tricks, running gags, and experts who can do tricks. The running gag consists of an almost identical scene repeated at fairly regular intervals throughout the film. For example, a fat man may be trying to stand up on skis but continues to fall down, in the last scene he has finally accomplished his feat with a triumphant look of success and satisfaction on his face. A skier may be made to appear traveling backwards or a jumper can fly through the air with the greatest of ease—backwards. How??? Very simply. Just hold the camera upside down while photographing, and reverse the film (end for end) when it is edited. This can be done with 8mm film but, because the perforations are on one side only, the picture will appear reversed from left to right. The timid skier may be made to appear much better than he is by shooting him at 8 frames per second, which will double his speed when the picture is projected on the screen. A spill appears to be quite funny when shot in slow motion.

Other ideas for individual shots which may be worked into the proper sequences are packing or unpacking skis from tops of cars, shoveling cars out of snowdrifts, extra close-ups of boots being greased and locked into ski bindings, herringbone patterns made by climbing on fresh snow, close-up of man's face before starting a run or jump, close-up of skis moving off, semi-close-up slow motion of a turn which is spliced between two distant shots of a skier traveling down hill, skiing in formation by groups (if you are lucky enough to get that much co-operation), gay, colorful costumes worn by skiers, and after skiing hours, activities around a lodge.

During the editing operation good continuity may be formed by using similar shots from different runs which will fit together. If you want to make a long runout of a number of short scenes try to have the skier enter the frame of the picture from one side and leave from the other on successive scenes. For example, if the skier enters the frame of the first scene from the left, traveling to the right, and finally leaves at that side, be sure that he enters the frame in the next shot from the left. If he should leave the frame at the right and enter the next scene from the same side it would appear to be a different slope and would break the continuity. This same rule should be applied in using two scenes to make up a single ski jump. For example, if the camera man is located to one side and below a ski jump he may photograph it in two different ways. One is to follow the jumper down, which might be difficult, having to move the camera through an arc of nearly 180 degrees quickly. The other is to shoot the take-off and then turn around and shoot the landing of another jump. When these are spliced together they will appear to be one and the same jump unless the clothes of the two different jumpers are radically different.



Get plenty of action!

Do not take panoramas. Hold the camera steady in relation to the background and let the skier move through the scene, or follow the skier and let the background move. Do not have both skier and the background moving in relation to the camera simultaneously.

Title backgrounds may be made on the spot by picking a pleasing scene and underexposing it approximately one stop. An accurate footage record should be kept of these scenes so that the film may be rewound at home, placed in the camera again and titles double exposed upon them. Another method of making title backgrounds is to take still photographs, 35mm size or larger, either black and white or color, which may be rephotographed at home with a movie camera. The written or printed title can then be double exposed upon this background, which will result in something "different."

Don't make your ski picture so full of action that there is no space for the straight scenic shots such as close-ups of a snow-covered tree, a stream winding between snow banks, distant pictures of the surrounding country, and sunsets. Stereoscopic effects may be achieved by shooting sideways out of the chair of a ski lift while riding up to the top. Focus your camera on a distant mountain and disregard the trees which you pass by in the foreground. The effect attained may be a pleasant surprise.

Other sports to add to your winter movies, and which make good pictures are skating, tobogganing, ash-can slides, skijoring, sleigh rides, snow-ball fights and swimming at Sun Valley.



"Matriarch"

John Muller, New York, N. Y.

First Award—Advanced Class

★ This is unquestionably one of the finest portraits which we have seen in many a day. It is so true, so penetrating, so convincing and so entirely devoid of pretense and artificiality. Here is real proof that the camera can do a superb job of direct honest expression if only the photographer has learned to understand his medium and has the artist insight to appreciate the essentials of his subject matter. This picture speaks eloquently of the life and character of its subject. Of poverty, of courage, or hard work and of the persistence of racial traits. Because it tells all of that and more with simple forceful directness it is a great picture. We are often appalled and discouraged at our inability to tell in more explicit and definite terms than the above the "why" of a fine picture. We can speak of the fine expression, of the revealing pose, of the very effective use of the hands, etc., etc., but these are comments which have been made of thousands of pictures which do not begin to equal the stature of this one. It is all too easy to point to the difference between good and bad, but a full realization of the difference between good and great must ultimately come from within the observer himself—it can be obtained from no other source.

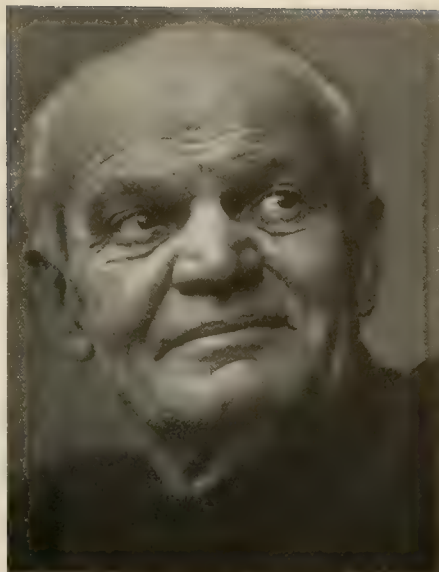
Data: $2\frac{1}{4} \times 2\frac{1}{4}$ " Rolleiflex; approximate exposure $1/50$ th sec. at F:11, on Kodak Verichrome in D-76; $13\frac{1}{4} \times 17$ " print.

Second Award

Advanced Class

♦ The technique which Mr. Herrington uses to obtain such fine portraits as this is quite fully explained in his article in our December issue, but of course there is much more than just technique involved. His technique is responsible for the excellent modeling and texture which this picture displays, but it does not account for the alert, interested expression which is the quality which really puts the picture over. It is often maintained that the presence of third parties is a distinct detriment to a portrait sitting. Yet Mr. Herrington almost invariably makes his pictures in the presence of a considerable audience. We suggest that this condition helps him to get the completely natural and alive expressions which characterize his work. He makes many of his pictures at a famous summer encampment conducted by the Bohemian Club of San Francisco. He almost always finds his subject taking part in a lively discussion in a fairly large group. He disturbs him as little as possible, simply moving him to a position which gives satisfactory lighting and background, and permitting the discussion to go on unhindered. Under these conditions his exposures are almost "candid" and the subject is completely at ease. It is next to impossible to create such conditions, but it is well to know of the opportunities which they offer.

— Data: $3\frac{1}{4} \times 4\frac{1}{4}$ " Series D Graflex; $6\frac{1}{4}$ " Zeiss Tessar; $1/5$ th sec. at F:6.3 on Kodak Panatomic-X, in DK-76; outdoors in shade (see article); $10\frac{1}{2} \times 13\frac{1}{2}$ " print on Kodak Kodalure S, in D-52; Nelson Gold Tone.



"Clarence Buddington Kelland"
Fred S. Herrington, A.R.P.S.,
San Francisco, Calif.

Third Award

Advanced Class

♦ Mr. La Cour has done a very nice job of posing and photographing these hands. The structure is quite clear everywhere and that is the hall mark of good posing. The highlights on the first and second knuckles of the right hand are perhaps a bit too strong and could stand slight printing in. The picture might be given a slight fillip of interest if there were a more pronounced feeling of action. The hands now appear to be simply resting in position, not actually playing. If muscular tension were more evident and if one or two of the harp strings were vibrating it should be possible to suggest that playing was actually taking place. We do not mean that one should attempt to shoot while the harp was really being played. It would be next to impossible to get a satisfactory aspect of the hands under those conditions.

Data: $14\frac{1}{2} \times 16\frac{1}{2}$ " print.



"Musical Hands"
Marshall W. La Cour,
Alhambra, Calif.

Fourth Award

Advanced Class



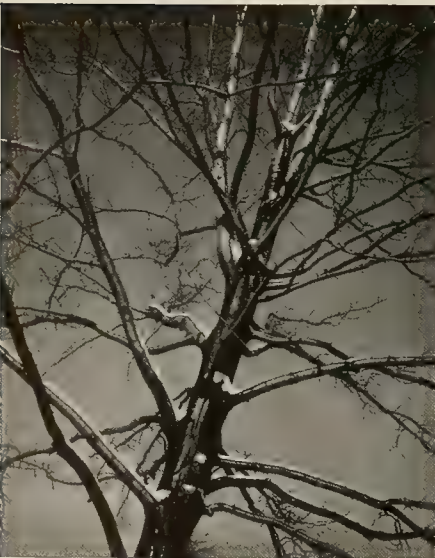
*Michael J. Roll,
Dearborn, Mich.*

✦ This picture speaks eloquently of vast spaces. The sky and the tonal composition are quite beautiful, and there is a pronounced feeling of movement that carries the eye inward and then up through the great sweep of the sky. Observe how important it is to place the figures against the path of light on the water. This brings the two points of emphasis in the foreground together. The figures serve as an emphatic point to which the eye moves first. They are more emphatic when placed directly against the brightest part of the water. In this position the figures also enhance the general directional movement of the picture. If they were elsewhere the eye would have to jump from the figures to the pathway of light and the smoothness and force of the movement would be diminished by such a necessity.

Data: $2\frac{1}{4} \times 2\frac{1}{4}$ " Rolleiflex; Zeiss Tessar F:3.5; $1/100$ th sec. at F:11; no filter; $13\frac{1}{2} \times 17\frac{1}{4}$ " print on Kodak Kodabromide F.

Fifth Award

Advanced Class



*John Maker,
Detroit, Mich.*

✦ This picture is technically quite good. The interest value of the material is heightened by the intriguing touches of snow and there is a reasonably strong concentration of interest about the main trunk in the lower third of the picture. The eye remains within the picture space because there is no one branch which has sufficient directional force of itself to carry it out, but it must be said that, for us at least the multiplicity of branches tend to create a somewhat confused condition. A more simple form with a more clearly defined movement and structure is better for pictorial purposes.

Data: $2\frac{1}{4} \times 2\frac{1}{4}$ " Rolleiflex; Kodak Panatomic-X in Kodak DK-20; 14×17 " print on Defender T-3, blue toned in Gold Chloride.



"Surf"

Clem Inskip, Monrovia, Calif.

First Award—Amateur Class

† This picture is built upon two opposing lines of force, the rocks which move from lower left toward the upper right and the more active and broader sweep of the wave which thrusts against the other movement. These two elements are nicely balanced by keeping the more dynamic wave in the upper part of the picture space so that it has plenty of room in which to expend its force. The print shows excellent texture and detail, particularly in the rocks and the foam covered foreground, which adds much of interest to the picture. The shutter speed seems to be just right. Movement is completely stopped in all but the most active parts of the wave. Thus the wave does not look "frozen" and full advantage can be taken of the rich detail in the less active areas of the picture. There are several minor factors which help greatly to contain the eye within the picture space. The dark areas of water at either end of the wave are most important in this respect and the dark tone of the water above the wave is also advantageous. No doubt these areas were dodged in to a considerable extent, for the water would not appear quite this dark under such bright illumination as apparently existed. However the dodging is simply an intensification of the existing situation, not a contradiction of it and is therefore entirely justified.

Data: 11x14" glossy print.

Second Award

Amateur Class



"Evening Glory"

H. D. Ohm,

San Antonio, Texas

Data: $2\frac{1}{4} \times 2\frac{1}{4}$ " Zeiss Super Ikonta B; $1/50$ th sec. at F:8, on Kodak Panatomic-X in Edwald Super 20; low sun, 4:30 P. M. in late October, K-2 filter; $14 \times 17\frac{1}{2}$ " print on Defender Velour Black DL, in Edwald 103.

✦ This picture presents a fine example of the importance of lighting and atmospheric conditions in landscape work. Imagine how utterly scrawny and inadequate this subject would be under a frontal lighting. The late afternoon light eliminates undesired detail in the foreground by throwing this area into shadow; solidifies the form of the tree so that it takes on a beauty of structure that would otherwise be absent; lends additional beauty and character to the tree by touching its outer foliage with light; and justifies a sufficiently deep sky tone to show the tree in a nice tonal relationship to the sky. There was apparently some movement in the upper reaches of the branches. This is most pronounced in the parts touched by light which is unfortunate since these are precisely the parts where the eye is inclined to search for detail. Lack of detail at the top of the tree is also partly due to a slight falling off of focus. The fence post just behind the tree is not sharp and this is at least as close to the camera as is the top of the tree. Complete depth of field is not desirable in this case so far as the distant reaches of the fence are concerned, but it should include the entire expanse of the tree.

Third Award

Amateur Class



"Sundown"

Walter C. Ross,

Springfield, Mass.

Data: $2\frac{1}{4} \times 2\frac{1}{4}$ " Zeiss Super Ikonta B; $1/50$ th sec. at F:8, on Agfa Superpan Press; 4:00 P. M. late winter day, no filter; 13×16 " print on Velour Black glossy in D-55; Gold Chloride blue toner.

✦ Melting snow is very beautiful under a low angle of light. In the present picture that attractive quality is enhanced by the zig-zag movement of line which cuts back and forth across the pathway of light. The picture is also suggestive of the deep lifeless sleep which winter casts over the landscape. We may learn from this picture that the force of linear movements may only be appraised in relation to all other factors in a picture which tend to exert an attraction for the eye. If we look at linear movement alone it might easily appear that the line of the gully which begins in the lower left would carry the eye out of the picture where this line reaches the right edge of the print. It is plain however, when we consider things as a whole, that the strong highlight on the snow in the upper center, and the mass of dark trees near the top exert an attraction which is counter to the line of the gully and which is strong enough to hold the eye in. The line of the other gully which runs horizontally helps also by providing a pathway for the eye.

CAMERA CRAFT

Fourth Award

Amateur Class

✦ This picture shows some attractive old architecture and is made doubly interesting by the spontaneous attitudes of the various figures. If we look only at the architecture the picture composes quite nicely, but when we consider the figures the situation is not quite so happy. We cannot escape the feeling that the nearer figure should be much further toward the right in order to justify the present format. As things are there is much too much space on the right. This feeling is due to the fact that our two principal points of emphasis, the nearer figure and the figure of the man in white are not balanced with respect to each other in the picture space. We can achieve such a balance by trimming in from the right until the shadow of the nearest figure almost reaches to the right edge of the trimmed print.

Data: 4x5 Speed Graphic; $5\frac{1}{4}$ " Turner-Reich Triple Convertible; 1/100th sec. at F:11, on Agfa Triple S Pan developed 11 mins. in ABC Pyro; 7:30 A. M. in October, with orange filter; 14x16" print on Velour Black I 3 in D-52, sepia toned.



"Old Taxco"
Alan C. Johnston,
Dallas, Texas

Fifth Award

Amateur Class

✦ One's estimate of this picture will depend to a considerable extent upon whether the peculiarly worn hat seems overly flamboyant or sufficiently natural for pictorial purposes. It is quite plain, of course that such a decision will be based partly on an appreciation of pictorial effectiveness but for the most part on one's experience with the subject matter. This points directly to one of the many imponderables which must be weighed in judging a picture. Is the picture true and convincing or not? It need not be literally true but only true within the limitations of artistic license. And what are the limitations of artistic license? Here we face another imponderable which calls for subtle appreciations of illusive factors. In general we might say that the artist is entitled to intensify existing qualities, but that he must be careful not to overplay his hand to the point of obvious exaggeration. These questions show, in part, why judging can not be simply a matter of applying fixed standards. But they do not concern the judge alone. They are of far more importance to the picture maker who must continually strive to develop a finer and finer appreciation of the subtleties involved.

Data: $2\frac{1}{4} \times 2\frac{1}{4}$ " Rolleicord; 1/100th sec. at F:8, on Agfa Supreme in Agfa 17; bright sunshine; 11x14" print on Kodak Opal G, in D-52.



"Sambo"
John L. Bastion,
Los Angeles, Calif.

Monthly Competitions

Scoring for Club Trophy Cups

The following won points for their respective clubs in the Advanced Class. Michael J. Roll and John Maker for the Detroit Miniature Camera Club; Marshall W. La Cour, for the Pasadena "Y" Camera Club; John Muller, for the Pictorial Photographers of America. Fred S. Herrington has no club affiliation.

The following won points for their respective clubs in the Amateur Class. Alan C. Johnston, for the Dallas Pictorialists; Clem Inskeep, for the Foothill Camera Club; H. D. Ohm, for the San Antonio Pictorial Camera Club. Walter C. Ross and John L. Bastion have not indicated any club affiliation.

Contributing Clubs

Alameda Photographic Society (Alameda, Calif.)	Pasadena "Y" Camera Club (Pasadena, Calif.)
Berkeley High School Camera Club (Berkeley, Calif.)	Photographic Society of Hong kong (Hong-kong, China)
California Camera Club (San Francisco, Calif.)	Pictorial Photographers of America (New York City)
Dallas Pictorialists (Dallas, Texas)	Salt Lake City Camera Club (Salt Lake City, Utah)
Detroit Camera Club (Detroit, Mich.)	San Antonio Pictorial Camera Club (San Antonio, Texas)
Detroit Miniature Camera Club	Sierra Camera Club (Sacramento, Calif.)
Everett Camera Club (Everett, Wash.)	Tulare Camera Club (Tulare, Calif.)
Foothill Camera Club (Pasadena, Calif.)	Yellow Springs Camera Club (Yellow Springs, Ohio)
Kamera Kranks (Chico, Calif.)	Zion Camera Club (Zion, Ill.)
Pacific Camera Guild	

Standing of Clubs

Large Clubs—Advanced Class

Large Clubs—Amateur Class

Pictorial Photographers of America.....	5	No Score.
Detroit Miniature Camera Club.....	3	

Small Clubs—Advanced Class

Small Clubs—Amateur Class

Pasadena "Y" Camera Club.....	3	Foothill Camera Club.....	5
		San Antonio Pictorial Camera Club.....	4
		Dallas Pictorialists	2

SUMMARY OF COMPETITION RULES

1. Open to all, amateur or professional, club member or non-club member.
2. Closing date 1st of each month.
3. Indicate class of entry (Advanced or Amateur) and club membership (if any) on back of each print. Technical data should accompany each print.
4. No entry fees or blanks required.
5. Stamps must be enclosed for return of prints.
6. Full explanation will be sent free on request or may be seen on facing page.

THE CAMERA CRAFT MONTHLY COMPETITIONS—EXPLAINED

It is well to understand at the start that the rules governing these competitions are purposely kept at a minimum, so that the competitions may be open to all without red tape and without complication. A competitor may take whatever action he desires that is not specifically denied by the rules. **Camera Craft** makes no copyright claim to the pictures which win awards, and their makers are entirely free to do with them as they wish. Do not bother to wonder if you may do this or that. You have complete liberty of action, provided only that you observe the few simple rules given below.

Rules

- Any one may enter. You are **not** required to be a member of a camera club, a subscriber to **Camera Craft**, or anything else. No entry fees. No entry blanks. No restrictions on size, or number. Mounts are not required.
- There are two classes, "Advanced" and "Amateur." These groups are judged separately, with five awards in each class, ten awards in all. The ten winning prints are published in **Camera Craft** each month.
- Prints must have maker's name and address, the class in which they are to be entered (whether "Advanced" or "Amateur") and the technical data (see below) regarding them, plainly marked on the back of each.
- Prints shall be returned only when stamps sufficient to cover are enclosed with the pictures. Do not send stamps under separate cover as it is possible they may not be connected with the identity of the sender or prints.
- Prints may be in black or sepia but tinted and painted photographs are barred.
- Prints must be in before the 1st of each month to be entered in the succeeding month's competition.
- Prints winning prizes cannot be returned.
- The object of the two classes, Advanced and Amateur, is to insure that individuals shall compete on as even terms as possible. Compare your prints with those shown as prize winners in the two classes, and decide with which group your pictures would most fairly compete. If in doubt enter first in the amateur class and then if successful move up to the advanced class. In order to insure fairness and an equal chance to all, the judges reserve the right to move prints into the advanced class if the quality of the pictures seem to justify this.

Awards—Advanced Competition

First: \$10.00.
Second: \$7.50.
Third: One year's subscription to **Camera Craft**.
Fourth: One year's subscription to **Camera Craft**.
Fifth: One year's subscription to **Camera Craft**.*

Awards—Amateur Competition

First: \$7.50.
Second: \$5.00.
Third: One year's subscription to **Camera Craft**.
Fourth: One year's subscription to **Camera Craft**.
Fifth: One year's subscription to **Camera Craft**.*

* May be presented to a friend or divided and presented to friends at this or holiday time.

Technical Data

We request that the technical data be placed on the back of each print submitted to the competition. A complete technical description should cover the following points: Size and make of camera, make and focal length of lens; exposure time and aperture used; negative material; negative developer; filter; light source; (if artificial, the number of lights and the wattage, if outdoors, the time of day and the month); paper; print developer; special treatment. By "special treatment" we mean, any manipulation or procedure that is not covered by the above.

Club Trophy Features of the Competitions

Four Trophy Cups will be awarded to clubs making the best record in the **Camera Craft** Monthly Competitions each year. Awards will be made on the following basis:

1. Clubs are divided into two groups—large and small on the basis of membership, and

identical awards will be made to each of the two groups. This is to make sure that competing clubs will be of approximately the same size. Large clubs will be those whose membership is over 40. Small clubs are those with membership of 40 or less.

2. The four awards are as follows:
 - (a) To Large Club making highest total score in the Advanced Class.
 - (b) To Large Club making highest total score in the Amateur Class.
 - (c) To Small Club making highest total score in the Advanced Class.
 - (d) To Small Club making highest total score in the Amateur Class.
3. Points in each of the four divisions, Large and Small Clubs, Advanced and Amateur Classes are as follows:
5 points for First Award, 4 points for Second Award, 3 points for Third Award, 2 points for Fourth Award, 1 point for Fifth Award.
4. Each club has the opportunity of competing for two cups. One in the Advanced Class and one in the Amateur, but individuals within the club cannot enter in both classes. Individuals may choose the class in which they wish to compete, but the judges reserve the right to change entries from the Amateur to the Advanced Class if the quality of the work seems to warrant it.
5. No individual can earn more than 15 points for his club.
6. It is well to understand that the conduct of this competition is in nowise changed by the addition of these annual club awards. Judging is still entirely on the basis of the individual print, and those who are not club members have the same chance of winning awards as formerly. The only difference is that now if a prize winner is a member of a club, his club will be credited with the proper number of points allocated for that prize.
7. Scoring for these cups begins with the January Competition, prints for which must reach this office on or before December 1st. It runs for 12 months concluding with the December competition. Prints for each succeeding competition must reach this office on or before the 1st day of the preceding month.
8. Club name, makers name and address, and technical description of print must appear on the back of each picture.

What a Club Should Do

- Study the rules which appear on this page and the rules governing the competition in general which appear above. ■ Appoint a committee of one or two whose sole duty will be to collect and forward prints **each** month and on **time**.
- Divide your membership into two groups, one to compete in the Advanced Class, the other in the Amateur. It is not required that a club compete in both classes.
- Be sure and send each month as it is the total score that wins.

Prize Winners Widely Exhibited

The winning prints in these competitions are made up into Traveling Salons and circulated for exhibition and study to Camera Clubs throughout this country. At present 209 clubs are receiving these shows so we feel entirely safe in saying that these pictures receive a wider exhibition than is possible by any other means.

IN REPLY TO QUESTIONS

1. There is no rule against entering a print in the competitions more than once, providing it has not won an award.
2. Either clubs or individuals may send a batch of prints in one package and have two or three entered each month, the group being returned when all prints have been entered. When such procedure is desired a covering letter should be sent, and the sender **MUST** mark on the back of each print the month in which it is to be entered. Camera Craft will not take the responsibility of selecting which prints from a group are to be entered in any given competition.
3. The safest means of transportation is by Railroad Express, but this is more expensive than Parcel Post in most cases.

Club Notes

(Continued from page 9)

Third Annual Central Ohio Salon of Photography, sponsored by the Central Ohio Camera Club Council. Entries restricted to Central Ohio and adjacent territory. Address W. J. Stevens, Salon Director, Central Ohio Camera Club Council, 2693 Hibbert Ave., Columbus, Ohio. Closing date Jan. 17, 1942. Entry fee \$1.00. Limit 4 prints. Columbus Gallery of Fine Arts, Feb. 4 to 8, 1942.

Fourth Annual Montana Photographic Salon, sponsored by the Missoula Camera Club. Entries from Montana amateur photographers only. Address Willard C. Akins, Chairman Salon Committee, 405 South Third St., Missoula, Mont. Entry fee \$1.00, limit 4 prints. Closing date Jan. 19, 1942. Jan. 23 to 25, 1942.

Fourth Annual Youngstown Photographic Salon, sponsored by the Youngstown Camera Club. Address R. M. Eichmeyer, Salon Chairman, Butler Art Institute, Youngstown, Ohio. Closing date Jan. 27, 1942. Entry fee \$1.00, limit 4 prints. Butler Art Institute, Feb. 6 to 20, 1942.

St. Clair Central States Midwinter Salon of Photography, sponsored by the St. Clair Camera Club. Address the Salon Committee, 5494 St. Clair Highway, St. Clair, Mich. Open to all photographers in Michigan, Ohio, Indiana, Illinois, Wisconsin and Minnesota. Closing date Jan. 31, 1941. Entry fee \$1.00, limit 4 prints. St. Clair City Auditorium, Feb. 21 to 25, 1942.

Fourth Annual Valley of the Sun Photographic Salon, sponsored by the Arizona Pictorialists. Address W. M. Tillery, Salon Chairman, 1107 E. Roosevelt St., Phoenix, Ariz. Closing date Feb. 1, 1942. Entry fee \$1.00, limit 4 prints. Feb. 15 to March 7, 1942.

Annual Photographic Exhibit of the Fine Arts Center, Parkersburg, W. Va. Address Miss Barbara Davis, 1225 Juliana St., Parkersburg, W. Va. Closing date Feb. 16, 1942. Entry fee \$1.00, limit 5 prints. March 2 to 24, 1942.

Seventh San Antonio Salon of Pictorial Photography, International, sponsored by the San Antonio Pictorial Camera Club. Address H. D. Ohm, Salon Chairman, P. O. Box 331, San Antonio, Texas. Closing date March 1, 1942. Entry fee \$1.00, limit 4 prints. March 15 to 31, 1942.

International Prairie Salon of Photography, sponsored by the Fargo Camera Club. Address Henry Bogenrief, Salon Chairman, Waldorf Hotel, Fargo, N.D. Closing date March 16, 1942. Entry fee \$1.00, limit 4 prints.

The Fifth Annual Salon of Photography, of the Camera Club of Fitchburg. Address Elsie L. Lowe, Salon Chairman, Pearl Hill Road, Fitchburg, Mass. Closing date March 25, 1942. Entry fee \$1.00, limit 4 prints. Fitchburg Art Center, April 5 to 29, 1942.

The Fourth Annual Salon of Photography of the City of Racine, sponsored by the Racine Camera Club. Address Gene Weins, Salon Chairman, c/o Wustum Museum of

Fine Arts, Racine, Wis. Closing date April 15, 1942. Entry fee \$1.00, limit 4 prints or 6 color slides, 2x2". The Charles A. Wustum Museum of Fine Arts, May 1 to 31, 1942.

The Fifth Annual Rocky Mountain Salon, sponsored by The Denver Photographic Society. Address Basil Leonoff, Salon Chairman, 1435 Milwaukee St., Denver, Colo. Closing date April 15, 1942. Entry fee \$1.00, limit 4 prints. Denver Art Museum, May 1 to 15, 1942.

The Third Toledo International Photographic Salon, sponsored by the Toledo Camera Club. Address Carl F. Reupsch, Salon Chairman, Toledo Museum of Art, Toledo, Ohio. Closing date April 15, 1941. Entry fee \$1.00, limit 4 prints. The Toledo Museum of Art, May 3 to 31, 1942.

The Eleventh Annual Detroit International Salon of Photography. Address Isadore Berger, Salon Chairman, c/o Detroit Art Institute, Detroit, Mich. Closing date May 20, 1942. Detroit Art Institute, June 9 to 28, 1942.

Announcements

Attention Camera Club Secretaries! Still available are copies of the report on the Agfa Ansco camera club survey. If you do not have a copy, drop a card to the Camera Club Department, Agfa Ansco, Binghamton, New York, giving the complete address of the club where you would like one sent. The report covers all phases of camera club activities and should be of great value to program chairmen in planning programs.

Sacramento photographers were pleased when their craft was given recognition in the celebration of National Art Week, in Sacramento, California. Members of the Sierra Camera Club contributed photographs for an exhibition, as well as, a series of motion pictures. Grant Duggins acted as Chairman of Stills and Robert Stith as Chairman of Movies.

The Central Ohio Camera Club Council, of Columbus, Ohio, recently added five new member clubs to their list and now have a total of 26 member clubs. The new members are: The Photographic Society of B. U. C., Columbus; The Washington Camera Club, of Washington; The Portsmouth Camera Club, of Portsmouth; The Kenton Camera Club, of Kenton; The Twin Cities Camera Club, of McConnelsville.

The Miniature Camera Club of Detroit is pleased to announce that its President, Isadore Arnold Berger, was recently elected to a Fellowship in the Royal Photographic Society of Great Britain.

Club Activities

The Manitoba Camera Club of Winnipeg, Canada, recently inaugurated its eighth year with a very successful competition. The prints were exhibited in the Art Gallery of the Winnipeg Civic Auditorium. The following officers were elected to guide the club

during the 1941-42 season; Dr. Wm. Leach, President; C. E. M. Ward, Vice-President; J. M. Duncan, Treasurer; and J. R. Guthrie, Secretary, 1018 Jessie Ave., Winnipeg, Man., Canada.

The members of Cleveland Photographic Society are now putting the finishing touches on their new club rooms. They plan an open house on Saturday, December 27th, from 4:00 on and guest cards may be obtained from the members or from Herblyn

Thayson, 812 Huron Road, Cleveland, Ohio.

On January 5th, The Detroit Miniature Camera Club will present a public lecture by Frank J. Scherschel, famous newspaper photographer of the Milwaukee Journal. The lecture will include a demonstration of Mr. Scherschel's Strobflash equipment. The lecture starts at 8:00 p.m., at the Joseph Campau Science Auditorium, University of Detroit. Tickets are 50 cents each.

Notes and Comments

New Products

Spectrum Products Co. Inc., 33 West 60th St., New York City, manufacturers of the Iso-Color Process, announces an Iso-Color Junior Kit designed so that both amateur and professionals may "sample" the Iso-Color Process at low cost. The Junior Kit, selling for \$2.95, contains all the essential process chemicals necessary to make complete color prints. A set of balanced three-color separation negatives with given exposure factors for practice work is included in the kit, together with a booklet containing full working instructions for the nine steps of the process, which takes 40 minutes. Spectrum also announces that a set of balanced three-color separation negatives with exposure factors will be included in the \$6.85 Iso-Color Trial Kit from now on. Literature about the Iso-Color Process and the Iso-Color Junior Kit will be sent by Spectrum on request.

Now the home movie maker can buy film titles, hand lettered and illustrated, and ready to splice into his own developed epic. Luminite Film Products of Los Angeles has just announced this new boon to home movie producers. All ready to go over 250 titles, and more in production. These new type film titles are available now in either 8mm. or 16mm. size—black and white. Color titles are the next step, and are almost ready for release according to the officials at Luminite. The price, they report, allows any movie fan to use this type of professional title for less cost and bother than other methods. To our knowledge, this is the first time a finished title has been offered to the home movie maker. Each title is long enough to be read twice by the average person and more by others. Titles have long been the bane of home movie makers, and many of them will welcome Luminite's change of technique. The 8mm. titles sell five for \$1.00, while the 16mm. size sell five for \$1.50. By sending 25c to Luminite Film Products, Suite 600-C, 408 S. Spring St., Los Angeles, you will be mailed one complete title, 25 sample short ends, and the complete list of titles.

Bottled ruby heat in the form of a new infra-red ruby drying bulb has just been announced by the Wabash Photolamp Corp., Brooklyn, N. Y. The new ruby heat bulb has its color pigmented into the glass while it is still in its molten state. Designed for studio and darkroom use where speed in drying is essential, it generates a flood of infra-red rays that are converted into a deeply penetrating heat as soon as they

strike film or paper. Their action is to penetrate deep into the surface of the film to start the drying process from the inside out. For darkroom use, the ruby glass permits the worker to turn from the relative darkness of safelight illumination to the faint ruby illumination given by the new infra-red bulb, without eyestrain or shock to optic nerves. Among the uses suggested for the new Ruby Heat Lamp is its application for speeding up the drying of ferrotyped prints or prints drying on blotters or stretched cloth drying frames, and the quick drying of single films or strips of roll film. During the cold months, when low temperature solutions are the bane of the amateur worker, the new bulb should simplify rapid heating of processing solutions in the darkroom, and the quick drying of roll film tank reels, tanks, accessories, wet darkroom towels, etc. Many other uses should suggest themselves to the practical darkroom and studio worker. The new bulb will be made in the one 250 watt size, in the PS30 natural ruby glass, will have a burning life of 6,000 hours, and will list at \$2.00 each. Data on the application of infra-red Heat Lamps for speeding up film processing can be had from the Wabash Photolamp Corp., Brooklyn, N.Y.

Announcements

A notable addition to the augmented faculty roster just announced by H. P. Sidel, director of The School of Modern Photography is Helene Sanders, F.R.P.S. A distinguished member of the Oval Table Society, and a brilliant photographer, the young and charming Mrs. Sanders is acknowledged as one of America's outstanding teachers of Portrait Photography and Art Composition. She will serve the school as an instructress and in an important supervisory capacity. Mr. Sidel also announced that another floor has been taken to accommodate the increased student enrollment. The School of Modern Photography now occupies three floors in the modern building at 136 East 57th Street in New York City. Students from 18 states are now enrolled at the school.

An extra stock dividend of \$1 a share and a record-breaking wage dividend for 1942 of \$4,200,000, based upon common stock dividends, was announced recently by Eastman Kodak Company. The extra stock dividend is in addition to a quarterly dividend of \$1.50. The wage dividend, increased as a consequence, is \$645,000 higher than the previous largest amount distributed to employees, \$3,555,000 in 1937, and is \$1,575,000

(Continued on page 55)

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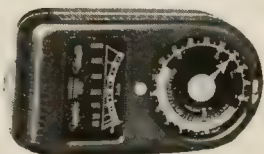
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3 1/4 x 4 1/4 Series D Graflex F3.5 Xenar F.P.....	115.00
5x7 Series B. Graflex No lens F.P.....	27.50
4x5 Series D. Graflex 18 cm. F2.9 Plaubel F.P.....	120.00
4x5 Tele Graflex 8 1/2" B & L Tessar F.P.	65.00
3 1/4 x 4 1/4 Series D Graflex Kodak F4.5 Anas F.P.....	79.50

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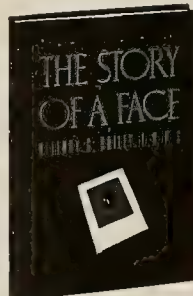
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CAMERA CRAFT

(Continued from page 52)

more than last year's wage dividend of \$2,625,000. It will be distributed in March.

According to an announcement by Homer Hilton, Sales Manager of Argus, Incorporated, Ann Arbor, Michigan, Larry Mills, Argus representative in the southwest territory, has just opened a new Argus sales office in the Southland Life Building in Dallas, Texas. "Mr. Mills," said Mr. Hilton, "has a wide acquaintance both in and out of trade channels in the southwest and his business has grown to such an extent that it was necessary to establish sales headquarters at a central point in his territory where messages could reach him at all times."

Retail prices of three G-E midget Mazda photoflash lamps were, in effect, reduced from 13 cents each recently to 11 cents each. These flash bulbs are the G-E Mazda mighty midget" synchro-press No. 5, SM speed midget," and the No. 11. The new 15 percent reduction, the G-E Lamp Department announcement from Nela Park stated, applies to purchases of not less than one carton of six midget lamps. Federal excise tax is included in the new list price of 66 cents per carton. This "price reduction," it was explained, is made possible by a revision of G-E photolamp department's sales plan and a constantly growing demand by the public for the three most popular G-E Mazda photoflash lamps. It was also announced that net prices of G-E Mazda photolamps to all quantity contract consumers were substantially reduced recently as well.

New Lens Caps for Bayonet Model Rolleis!
In answer to a demand which has been constantly increasing since the early days of the war blockade, Burleigh Brooks, Inc. announces that it can now supply metal lens caps for all 6 x 6 cm. bayonet model Rolleis cameras. These new caps are made in America, of solid brass with a permanently baked-in black finish. The new caps list at \$1.50 and can be secured through all photographic dealers.

Burroughs Wellcome & Co. (U.S.A.) Inc., announce with regret that under the present conditions it has been found impossible to print a 1942 edition of the "Wellcome Photographic Exposure Calculator, Handbook and Diary." During the past forty years, this handbook has become a standard work of reference on all things photographic. The Exposure Calculator has been an unfailing guide to many million photographers. When conditions permit, the company hopes to be able to produce the handbook again in a new and even more attractive guise.

Booklets & Catalogues

A new brochure entitled "A New Era in Filter Photography by Omag" which contains not only information on how to use Omag Filters but also the latest exposure factors for Agfa, Defender, DuPont, and Eastman films, has just been published by the Chess-United Co., Emmet Bldg., Madison Ave., at 29th St., New York City. Information is also given on the use of Omag

(Continued on page 57)

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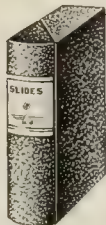


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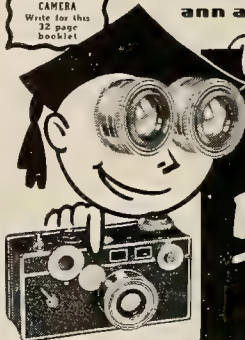
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(Continued from page 55)

Chrome-Flash Filters, used in conjunction with Wabash Superflash Photolamps. Write the above address for a free copy.

The Central Camera Co., Dept. A-6, 230 S. Wabash Ave., Chicago, Ill., has just published a new 64-page catalog listing all kinds of photographic equipment and supplies. A copy may be obtained from the above address.

Our Book Shelves

Flash in Modern Photography, by William Mortensen, with Supplementary Notes by Don M. Paul. Published by the Camera Craft Publishing Co., of San Francisco, Calif. Cloth binding, \$4.00.

One doesn't have to look back so many years to recall the heyday of flash powder, which experienced men faced stoically and the beginner with fear and trembling.

The modern flash bulb is a marvelous piece of equipment. Bulbs have been made smaller and smaller and at the same time more and more powerful. They are now produced for a variety of special purposes and at prices that are within the reach of every photographer.

Flash is the new light. A powerful and dynamic one. It offers great picture possibilities for a great variety of subjects. Naturally, it requires understanding and control.

The purpose of this book is to show the many possibilities of flash and to explain exactly how to use it. The book does not review or explain the mechanics of the many fine synchronizers that are now available. This information is available in instruction booklets. The book tells what pictures to take with flash and explains how to take them.

Special emphasis is placed upon snapshot or personal record photography; portraiture and figure work with flash; landscape and architectural photography; and synchro-sunlight photography. A particularly valuable contribution is made to the technique of the latter, as the author presents a system of calculating synchro-sunlight exposures with great accuracy.

The book is particularly thorough and explicit in dealing with the all important problems of lighting and exposure with flash. The numerous lighting diagrams which accompany all important pictures show exactly how each picture was illuminated. All the systems for calculating exposures by flash are carefully discussed and definite recommendations made. In addition the author has developed an original method for quickly and accurately determining synchro-sunlight exposures which is of great value.

Documentary photography, press photography, blackout flash, police photography, radio publicity, movie stills, aviation photography, and clinical photography are all explained and illustrated in a special section by Don M. Paul. The photographs illustrating these various types of flash work represent the most outstanding work in the field.

The illustrations in the book are worthy

(Continued on page 59)



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(Continued from page 57)

of particular mention. There are 142 photographs that were made or selected to enhance the text. Many of the pictures are of the comparative type that show the same subject photographed with and without flash. Such illustration makes the effect of the flash crystal clear. Accompanying all important pictures are lighting diagrams, an absolute necessity in a book of this kind.

In conclusion, let us say that this book has the brilliant sparkle, the clarity of explanation and the extra "oomph" that is typical of William Mortensen's work.

The American Annual of Photography 1942. Edited by Frank R. Fraprie, F.R.P.S., and Franklin I. Jordan, F.R.P.S. Published by the American Photographic Publishing Co., of Boston, Mass. Paper binding \$1.50, cloth binding \$2.25.

We never see a new edition of the American Annual without thinking, "for \$1.50, how do they do it?" It's such a big book, more than 300 pages 7 1/4 x 9 3/4 inches, and it's packed with pictures, articles and special sections. But do it they do, and it should be to the joy of every photographer.

This year there are 80 full-page pictures representing the best in photography; 16 articles by such headline writers as: Lloyd E. Varden, Edna R. Bennett, Al Bernsohn, Leonard Misonne, Herbert C. McKay, Laurence Dutton, Paul L. Anderson, Jack Wright, etc.; a constructive criticism of the illustrations by Frank R. Fraprie; a detailed listing of the standing of salon exhibitors; and an up-to-date formulary.

If you aren't already acquainted with the American Annual of photography, be sure to get acquainted this year. It's a book that every photographer should add to his library.

The Universal Photo Almanac 1942. Edited by L. H. Lanctot, A.R.P.S. Published by the Falk Publishing Co., of New York City. Paper binding \$1.00.

Camera fans will welcome the report that the 1942 "Universal Photo Almanac" is now available. This 270 page book with its attractive three color cover is far and away the best of any of its predecessors. Edited by Louis H. Lanctot, A.R.P.S., member of the New York Institute of Photography's faculty, with Jacob Deschin, A.R.P.S., as associate editor, the '42 almanac contains 16 brilliant articles, 26 beautiful salon reproductions, about 100 pages of valuable formulas; a market guide which lists a thousand purchasers of publication photographs together with their specific requirements and prices paid; bibliography and other valuable information.

Among the top-flight artists and photographic stars who have contributed to the editorial and pictorial sections are: Adolf Fassbender, F.R.P.S.; Charles H. Coles, chief photographer American Museum of Natural History; Dr. D. J. Ruzicka, F.R.P.S.; Werner Stegemeyer; W. Mitchell Woodhouse; Jacob Deschin, A.R.P.S.; Dr. Stephen White, A.R.P.S.; Philip Sperry; Norris Harkness; Helene Sanders, F.R.P.S.; J. C. Liccion; Dorothy Wilding; Sted Jones, an International news correspondent; Victor de Palma; Karl A. Barleben, F.R.P.S.; Lloyd E. Varden and Martin Polk of the Manhattan Camera Club.



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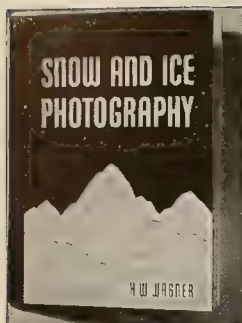
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Flash in modern photography

VILLIAM MORTENSEN

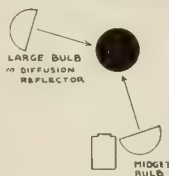
Supplementary Notes by Don M. Paul

For the first time a book that tells what to take with flash and how to take it. Complete in every detail. 142 photographs and 55 lighting diagrams!

Each phase of flash photography is covered with particular emphasis on personal record photography, portrait and figure work, landscape and architectural photography, and synchro-sunlight photography.

Each section by Don M. Paul discusses the particular problems of documentary, press, movie stills, radio publicity, industrial, clinical photography, etc. Each section is illustrated by outstanding photographs in the book accompanied by lighting diagrams.

Exposure problems of single and multiple flash and synchro-sunlight photography are considered with particular thoroughness. An outstandingly valuable contribution: a new and original system for calculating synchro-sunlight exposures with great accuracy.



This child study by Lawrence Kronquist, special photographer for Douglas Aircraft, is shown as a fine example of the use of diffused flash illumination for child portraiture. Lighting diagrams accompany virtually all illustrations.

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PART ONE

Chapter One—Construction of the Flash Bulb—Construction of typical flash bulbs. — Construction of typical flash bulbs. — Construction of typical flash bulbs. — Construction of typical flash bulbs. — Construction of typical flash bulbs.

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Chapter Three—Sun-plus-Flash — The dilemma of outdoor photography. Light and shadow and the S:L ratio. The basis ratio, 1:4. The ratio at work. Choice of set-up for synchrosun. Position of fill-in unit. Balancing the fill-in. Determination of balance: by guess and by God. Determination of balance: a more scientific method. "I," the "common increment." Calculating "I" by use of meter. Reading "I" from scale. Application of the increment. About meters. Summary of procedure for sun-plus-flash.

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PART THREE

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Press Photography — Flash responsible for increased use of pictures. Types of news pictures. Working conditions and methods.

Blackout Flash Photography—Pictures without light. Effects obtained. Uses. Technical data.

Police Photography—Uses and importance of flash in police work. Examples. Special police exposure table. Photographs as evidence.

Radio Publicity Photography — Advantages of flash in radio studio. Special problems.

The Movie Still Photographer—Increasing use of flash. Advantages. Types of movie stills. Methods. Advice.

Aviation Photography—The work of Lawrence Kronquist. Methods. Advice.

Clinical Flash Photography — Cameron Coloflash. Clinical Camera. Uses of flash.

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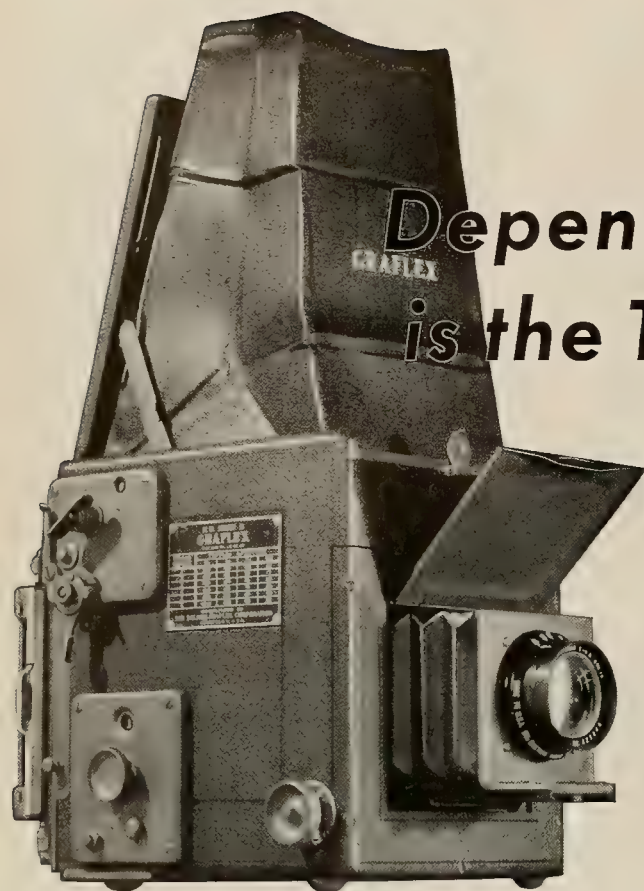
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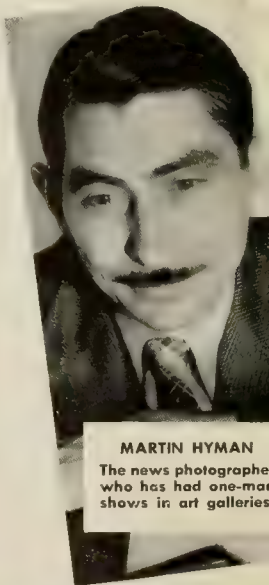
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IN A FEW SHORT MONTHS a new Kodak sheet film has established itself as a very useful member of the film family. It is Eastman Super Panchro-Press, Type B, designed expressly for use with Photoflash Lamps and with fluorescent lighting.

Much like Super Panchro-Press in its general characteristics, Type B differs in its somewhat lower red sensitivity—a feature

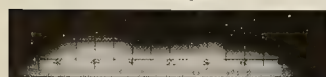
which assures a better monochromatic rendering of flesh tones under Photoflash illumination. In other words, press photographers have good reason for liking it. Too, those commercial studios which specialize in illustration, involving live models and Photoflash lighting, are finding it a film "tailored" to their measure.

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Tungsten	400	80	125

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to sunlight



BLUE GREEN RED

to Tungsten



BLUE GREEN RED

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Filter	K1	K2	K3	G	A	B	C5	X1
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Tungsten	1.5	1.5	1.5	2	3.5	7	10	3

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	Continuous Agitation Tray	Intermittent Agitation Tank
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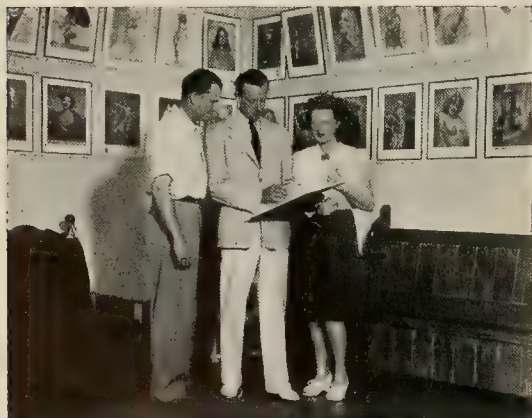
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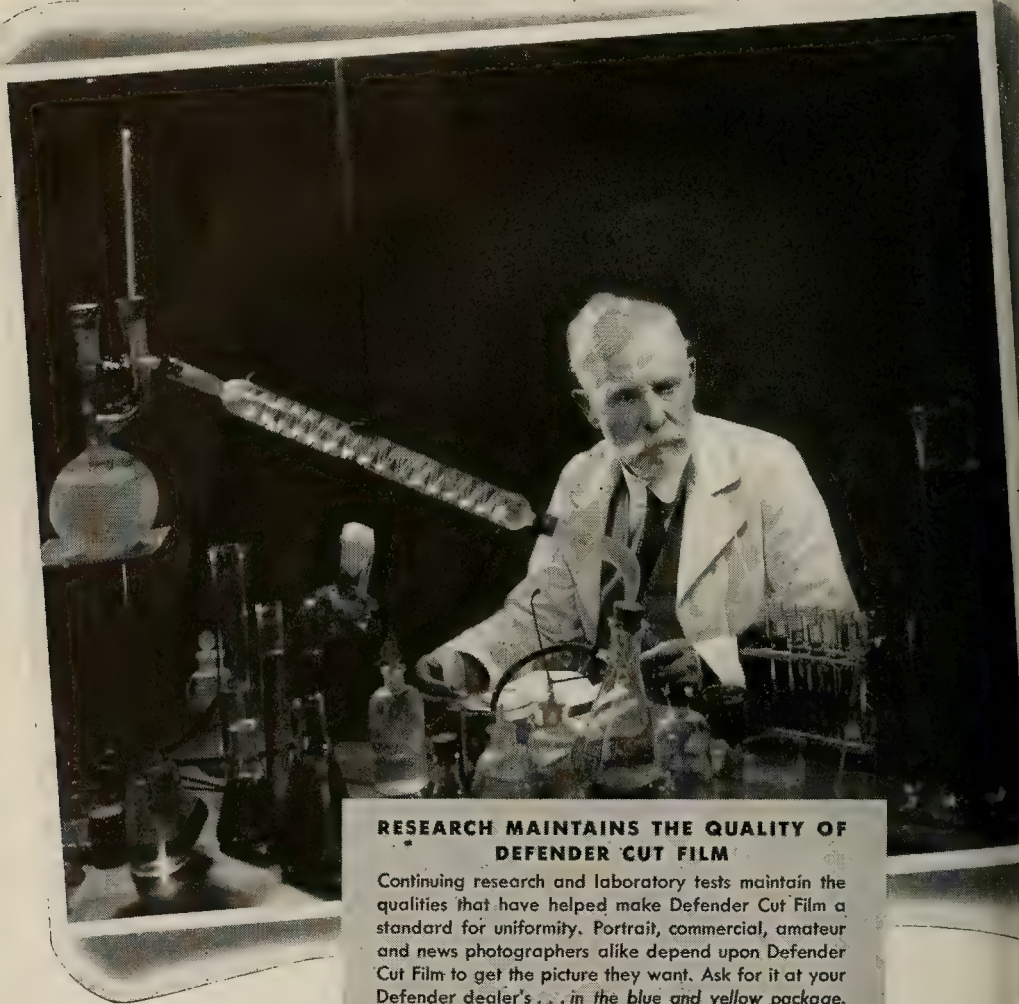
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A Photographic Monthly

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SINKS, DRAINAGE AND WATER SUPPLY. Plumbing considerations . . . kinds of sinks, comparison, costs, etc. . . waterproofing . . . acid-proofing . . . drainage, the problem in the basement.

AN APARTMENT DARKROOM. A portable, self-contained unit . . . used over standard bathtub . . . construction, etc.

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Correspondence

Print Sizes

To Whom It May Concern:

This is a plea against too large prints in salons. By "too large," I mean especially the prints mounted on mounts which are too small, leaving very narrow margins or no margins at all.

Even when properly mounted on huge mounts, there are reasons which often make very large prints undesirable.

Many salons do not have the facilities for hanging mounts larger than 16x20. The larger size mounts are difficult to handle, difficult to send through the mails and more likely to be damaged. But there are still other drawbacks.

For one thing, some of our salons are no longer an exhibition of art, a display of things beautiful, but an exhibition of posters, many of them of tremendous impact, but still posters more suitable for advertising than for hanging in a living-room.

Knowing that an 8x10 or even an 11x14 has hardly any chance of being accepted in a salon, many amateurs are discouraged from sending to salons. Large pictures are quite expensive to make because of cost of paper, and many people cannot afford the sizeable darkroom necessary for making such large prints.

The "large print" vogue does not give a chance to the processes. Bromoils, carbros, Fressons, far more beautiful than any ordinary bromides, are almost impossible to make in very large sizes.

Whose fault is this situation?

You cannot blame the wealthy amateur for making very large prints if he knows they have a much better chance of being hung.

It is the judges who should be very careful to judge a print on its beauty and quality and not on its size.

Judges should move closer to the prints and examine them more carefully. It is quite true that a 5x7 print seen from a distance of eight to twelve feet is quite insignificant; but, held in the hand, it may be more lovely than any 16x20. Have you ever examined a good copy of Steiglitz's Camera Work?

Personally, when judging, I penalize prints mounted on too small mounts, prints "bled" on the edges. Huge heads, particularly of women or children, should also be penalized, unless they are "out-of-the-ordinary" characterizations of strength, brutality, horror, etc.

Certainly, smaller prints **MUST** be segregated both when being judged and in the exhibition hall, and they should be judged first and at close range. (High key prints should also be judged separately.)

The best music is rarely that which makes the most noise.

The best literature is not that which uses the strongest words.

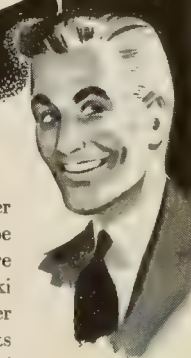
Robert Desmé, A.R.P.S.

The above open letter arrived quite independently of the article by Mr. Davis, which appears in another part of this issue. These

(Continued on page 73)

FEBRUARY, 1942

BETTER GET
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FOR THIS YEAR'S WINTER
SPORTS PICTURES



ACCORDING to weather men, this year's going to be great for skiing—and where there's skiing there's good ski pictures awaiting. Then later when spring comes in all its color you'll want to be sure of every picture, and there's no better way to be sure of exposure "right on the nose" than by using a G-E exposure meter.

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I HELP HIM
I'M UNNOTICED
REFLECTION"



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MARKS

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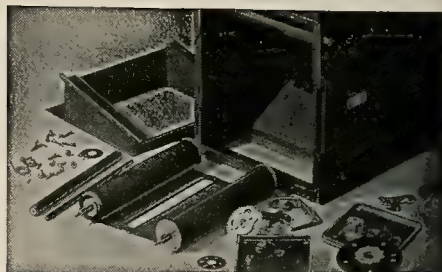
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CAMERA CRAFT

(Continued from page 71)

indications plus numerous others would seem to indicate that there is widespread concern throughout the country about the tendency toward larger and larger prints. Camera Craft will welcome readers' opinions on this subject for publication in this department in the March issue. Deadline February 12th. Please be as brief as possible.—Ed.

Club Notes

Photo Instruction

The University of California Extension Division announces the winter schedule for the very popular photographic courses conducted by P. Douglas Anderson, F.R.P.S.

At 540 Powell St., San Francisco, Calif.:

Photography 803B. Monday evenings, 7 to 9 P. M. Beginning Jan. 19th.

Kodachrome Photography 802. Tuesday evenings 7 to 9 P. M. Beginning Jan. 20th.

Darkroom Technique 808. Thursday evenings 7 to 9 P. M. Beginning Jan. 15th.

At 1730 Franklin St., Oakland, Calif.:

Photography 803B. Wednesday afternoons 4 to 6 P. M. and Wednesday evenings 7 to 9 P. M. Beginning Jan. 14.

Photographic Forum 804. Friday evenings 7 to 9 P. M. Beginning Jan. 16th.

Glen Fishback announces an addition to his already well established School of Photography. Enrollment is now being opened to advanced amateurs in groups of 4 to meet once every 3 or 4 weeks. This is to give sufficient time between classes to work on assignments and projects that fit the desires of each group. An opportunity will be given the students to do actual work in the studio under Fishback's supervision. By sharing transportation costs 4 ways, it is now possible for those some distance from Sacramento to take advantage of Fishback's instruction without too heavy a drain on the pocketbook. For further information, write to 2264 10th Avenue, Sacramento, Calif.

Announcements

Due to the scarcity of metals, film manufacturers have requested that all photographers save all empty film spools, film pack cases, aluminum containers, etc. Turn these in to your dealer or send them direct to the manufacturer, if you choose. This is one thing which you can do to insure a continued supply of film, in a form which fits your camera.

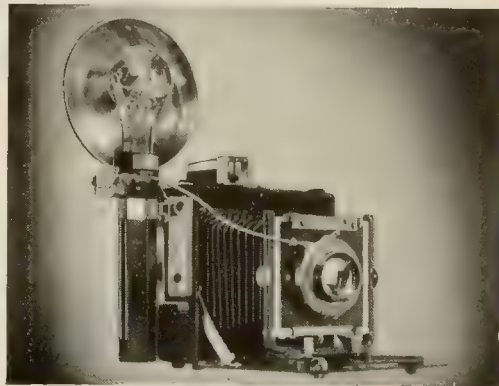
The Press Photographers Association of New York Inc. will hold its Annual Exhibit in the Museum of Science and Industry in Radio City, New York, from March 14th to April 12th, 1942, according to an announcement by Joseph Costa, Chairman of the Exhibit Committee.

Entries in the show are limited to members of the Association only.

Last year more than 740 pictures were hung. This total will probably be exceeded this year.

FEBRUARY, 1942

NEW PRESS CAMERA ACCLAIMED by AMATEUR and PROFESSIONAL



Amateurs who look with envy at the daily accomplishments of press photographers, who, somehow or other always seem to get their picture regardless of subject or conditions, will welcome the announcement of the NEW B & J 4x5 PRESS Camera. Selling at a popular price, it brings to the amateur an instrument that fully measures up to the standards required in modern press photography . . . and with it the amateur can emulate the successful press photographer.

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A comprehensively prepared 32 page Booklet No. B45 describing the new B & J 4x5 PRESS Camera may be had by writing direct to the manufacturer: Burke & James, Inc., 223 W. Madison St., Chicago, or see your local dealer.



"Illustration for Vultee Aircraft"

Herman V. Wall, Hollywood, Calif.

25th Los Angeles International Salon

Dear George

James N. Doolittle

Jim and Frank Look Over The 25th Annual Salon of the Camera Pictorialists of Los Angeles

GEORGE Allen Young,
Editor, Camera Craft,
San Francisco, Calif.

Dear George:

The other Saturday afternoon I was sitting alone in my studio, feet upon the desk in a sort of "requiescat in pacem" posture and luxuriating in that vacancy of mind which finds the week's work behind me, when who should bust in but Frank. It was the same Frank which I was telling you about just this same time last year.

"What's stirring, Jim," he asks, and I says, "Not me, Frank; what gives?" Well, neither of us found out very much by swapping this kind of conversation, but a peculiar glint in his eye gave me the notion he was trying to break out with something, so I says, "Have you been over to the Los Angeles Museum to the show?"

"What do I want of going way over there for, when I see all the good photography that's being done at the Art Center, five days a week?"

I thought so, George. It was the same as last year; he merely wanted to argue. So, since there's nothing I love worse than a good verbal set-to, I got myself into a more or less up-and-down position and took him on. Of course, I usually win out in arguments with Frank, because I talk louder, but I thought this time I'd try a little logic on him.

But he cut in with, "Now, you take this modern art," he says.

"You take it—take it a long ways off," I advised. "But, Frank, let's



Fred Archer judging the 25th Annual Los Angeles International Salon. Spectators, from left to right: Jack Barsby, Jules Kobs, Harold C. Edwards, Lynton Vinette, Larry Lewin, R. C. Lewis, Herman V. Wall, Charles Kerlee, Bob Wallace, Vic Matson, Karl Struss and Jim Doolittle. Photo by Jack Barsby.

hop into your car and scoot over to the Museum. Then we can see all kinds of art—the good stuff and the sort you go for.” I always like to ride in Frank’s car, the price of gasoline being what it is and, besides, when he’s driving he has to keep his mind on his work and I can do all the talking.

“My, what a small show!” was his first crack the minute we got into the gallery.

“Just what I have been hollering for right along,” I told him. “Every year too much stuff is hung; it’s a whole lot better to show a few good prints than clutter up the place with more than the customers will take time to look at. And you know, Frank, the only reason the Museum folks put on this annual event is so the art of photography will get seen.”

That slowed him up for a moment, but he says, “Jim, the show isn’t so doggone international again this year, is it?” and I says, “buy us a couple of catalogs so we can see where all these photos comes from.”

Well, he opens up our catalog from the back end, and says, “Lynton Vinette, Los Angeles, California—call that foreign?”

“That’s a mistake in printing—it’s Hollywood. Besides there’s a war going on, or hadn’t you heard? His portrait, ‘Hans,’ is a swell job, regardless of geography.”

“Roger Woods, Culver City; never heard of the place, but I like his



"Devil's Daughter"

Clarence Massey, Los Angeles, Calif.

25th Los Angeles International Salon



"Illustration for Collier's Magazine"

Charles E. Kerlee, Hollywood, Calif.

25th Los Angeles International Salon

'Fight, Team, Fight'—swell action," Frank admits.

"What's about Dr. Djalma Gaudio's 'From an Antique Palace'? It's from Rio, down Brazil way. That's international enough for me. And there's G. L. Hawkins with two from England. Talk about blockade running!"

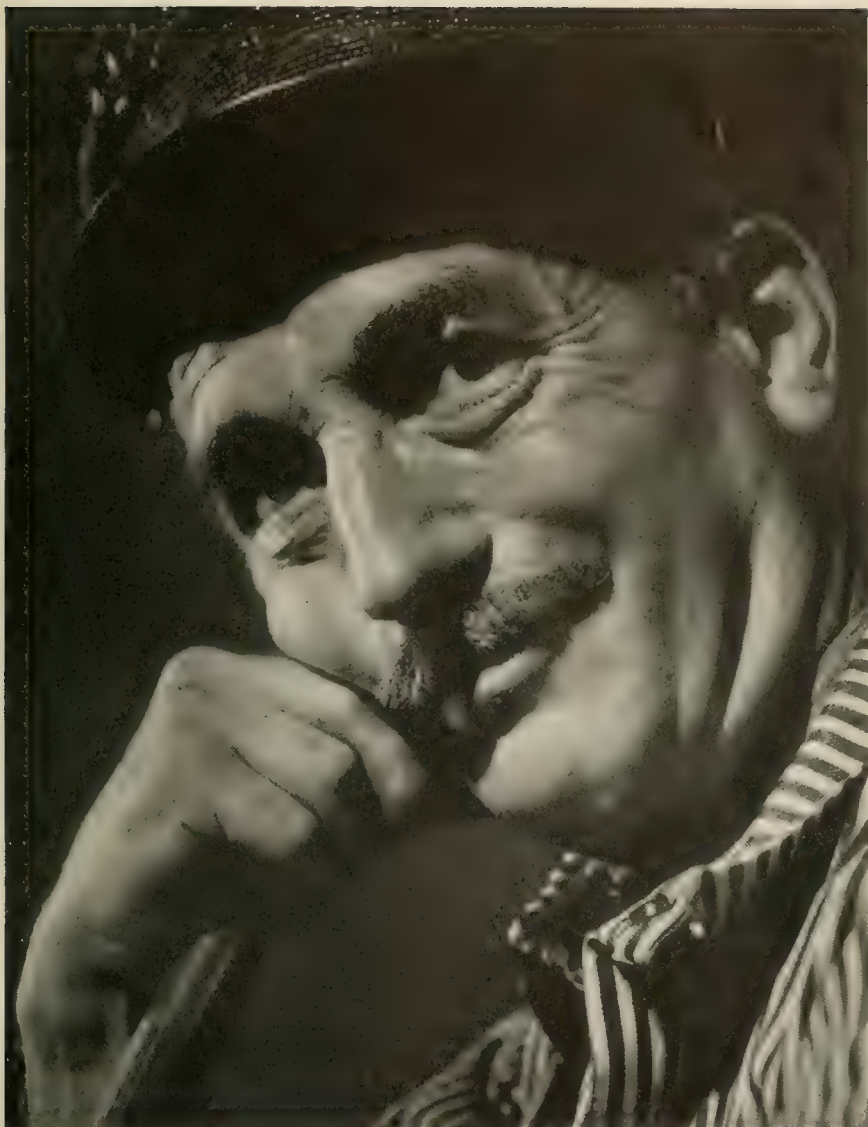
"Now you take the more modern sort of thing, like Leo Salkin's 'Still-Life with Glass,'" says Frank, grabbing our catalog. "That's an abstraction," he explains.

"What kind of traction did you say, 'ab' or 'dis,' I queried. Whatever it was the photography was all right with me. I know how it is on those rainy Sundays—a photographer has to do something.

Clarence Massey got into the same kind of a jam with his "Visions of Tomorrow." I like the way he did whatever he was trying to do. But maybe it's some of that surrealism or whatever you call it, and how would I be expected to know?

I go more for shots like the three by George Kinkade up Auburn way in Washington. Good deep snow and high mountains. At my age, though, George, I'd a whole lot rather look at where Kinkade had his camera than forward to the trip. What is it they say cigarettes do to one's wind?

Back to Massey again—he's got one honey of a print which he calls the "Devil's Daughter." It's a picture of a young lady not trying too hard



"Hans"

Lynton Vnette, Hollywood, Calif.

25th Los Angeles International Salon



"Fight, Team, Fight!"

Roger Woods, Culver City, Calif.

25th Los Angeles International Salon

to hide behind a couple of yards of chicken wire.

If she takes after the old man, he better build her a more substantial fence or make her put on a little something.

"Hay, Frank, lookit," I almost shout. "Here's one from Shanghai, China." Then I pointed out Chin-San Long's "The Dream Boat," as nice a spot of high-key work as I've seen in just ages. Things can't be as bad over there as we see by the papers. David Muramoto, from over in Honolulu does all right with a group of Orientals playing dominoes or something. From down Mexico way, Gordon* sends us two. "Gossip and Work" I like better than his other, "Tropical Lake."

"And, Frank, maybe you'd rather see a whole lot more pictures from all over, but lookit what a swell job of hanging the Museum was able to do. Take a load off'n your feet for a while and get the effect—prints in nice groupings with some regards for the appearance of the gallery. Makes it easier on the eyes and gives the subjects more of a break.

"For instants, Frank, look at that spread over on the west wall." "It's the south wall, Jim," he says. "You been looking so hard for out-of-town stuff you lost your sense of direction."

Well, George, I wasn't listening too hard or that crack would have meant something, but I wanted him to notice Edward Alenius' "Biscayne Bay," H. A. Durfee's "Jericho Creek," Look Kin Hing's "Morning Beam,"

* Gordon C. Abbott.



"Jeri"

Leo Salkin, Hollywood, Calif.

25th Los Angeles International Salon



"First Snow—Yosemite"

Shreve Ballard, Santa Barbara, Calif.

25th Los Angeles International Salon

George T. Lewis' "El Morro," and Thos. O. Sheckell's "The Gladstone Road." These five were a little salon all by themselves.

The hanging committee put Herman Wall's "Negro Boy" right alongside one by Peter J. Samerjan, which is a portrait of a little negro girl. The latter is titled, "In God We Trust." Both these boys have other subjects, which shows they don't want to get typed. This goes for a pair by Colin Creitz. "Transformers" is a shot of ponderous electrical equipment which has everything in the way of technique, but I go more for his "Baby Chow," which is not a picture of a bottle of milk, as you might guess, but one of those carrot-colored pups that I always give plenty of room, even on "Be-kind-to-animals" week.

"Well, I seen enough, Jim; let's get going."

"You haven't seen anything, Frank. Let's get a look at the color section where they have a lot of Kodachromes. Harold C. Edwards has a whole flock of them and I want to see some of R. C. Lewis' late ones."

But just then, George, they give us the high-sign that it's quitting time, so I say "Come on, Frank. I want to look this over again when I won't get stuck with lamp-light saving time." And I'm coming alone. I like to talk to myself; I'm more attentive that way.

Sincerely,

Jim.



"Dark Mountain"

Earl M. Scott, Los Angeles, Calif.

25th Los Angeles International Salon

What Paper Shall I Use?

R. Manning Hermes

Part Three

IN our previous articles we have been considering the making of full scale prints, without reference to key. We have shown how it is possible with the proper choice of paper to make a good print from almost any negative. We come now to the question of key in prints—a variation from the standard, straight print. In this regard we must recognize both full scale and short scale prints as being capable of high or low key treatment, and that each type of print has its particular advantages.

The full scale, high key print finds its happiest application in the making of pictures of babies, blondes, etc. In such a picture, the general tone of the print is kept as light as possible. But remember, the pupil of the eye is always black, and any other rendering of it is false. Consequently, it is necessary that it be recorded on the negative much lower on the characteristic curve than the rest of the image.

If we are careful in arranging the subject so that the clothes and background are light in tone, then we can readily drop the image of the pupil well below the rest of the image by giving a full exposure. The rest of the image will, of course, cause much greater densities—some of the brightest highlights might even be overexposed. This does no harm, however, because of its tendency to give softer gradation in the highlights—a very desirable result in portraiture.

We saw in Part Two that a long-toe paper suppresses highlight detail and tends to give a high key print; that for the denser portions of the negative, the tone gradation is slight but as we pass to the thinner portions of the negative, the density of the print increases rapidly. Therefore, if



"Skippy"

R. M. Hermes

Figure 1. A full scale, high key print obtained by full negative exposure, normal development, and printing on a long-toe paper. For data, see the text.

we so light our subject that the entire image is dense, save for the pupils of the eyes, the result will approximate the overexposure case of Part Two. If we print on a long-toe paper, we will flatten the highlight portions of the print but still maintain our black in the pupils of the eyes. For prints of this type, this is exactly the situation we want. We, then, formulate

PRINCIPLE 3: For full scale, high key prints give full to over-exposure, normal development, and print on a long-toe paper.

Figure 1 is an example of the application of Principle 3. Here, two Wabash No. 25 bulbs were used, the first about two feet to the left and two feet above the subject, the second three feet directly in front of the subject. Both bulbs were in Kalart reflectors. A third bulb, a Wabash No. 0, was used to illuminate the background. The exposure was made with synchronized flash at 1/200th second with an effective aperture of f:32 (actual aperture f:22) on Eastman Tri-X Pan. The recommended diaphragm setting for such lamp positions would be about f:64. The film was developed for eight and one-half minutes in Eastman DK-60a at 65°F. The print is on Cykora Medium in Agfa 135 for three minutes at 60°F. Cykora is a paper with a long toe.

If the subject is predominantly dark with few high light details, as for example, night shots of architecture or shots with strong backlighting, then a full scale, low key print is necessary. In such a case, generous exposure must be given in order to maintain shadow detail. This might result in overexposure of the highlights, but their blocking can be prevented by cutting the development time. Were we to print our negative on a long-toe paper, the shadow would be too open and the key too high. However, a consideration of the effect of overexposure as set forth in Part Two leads to the solution: A print on a short toe paper will compensate for the overexposure of the highlights and will keep the shadows low but full of detail. Hence

PRINCIPLE 4: For low key, full scale prints, the negative exposure must be generous, the development shortened, and the print made on a short-toe paper.

This principle was applied in making the print shown in Figure 2. The distant tower was brilliantly lighted, the other buildings were dark by comparison. However, it was essential that the texture in the foreground arch be kept. The exposure was on Tri-X Pan and was twice that called for by the exposure meter. Development was in DK-60a for six minutes at 65°F. The final print is on Brovira Soft in Agfa 125.

Thus far, the situations which we have considered have been those in which the subject itself was predominantly high key or low key, and essentially long scale. How about those cases in which the subject requires short scale treatment, and the key of the print depends on our choice of lighting? How are we to expose and print for short scale results?

In photographing the snowdrops shown in Figure 3, the subject called for very delicate treatment. All abrupt gradations were to be avoided. It was decided, therefore, to utilize as flat lighting as possible. The arrangement was set under a frame, the frame covered with white sheeting, and the lights adjusted on the outside of the sheeting so as to give a slight directional lighting, but with very soft shadows.

At the same time the petals had to be separated from the light background. In other words, full gradation was to be kept in the highlights. To accomplish this, minimum negative exposure was given, followed by normal development. The resulting negative was very flat and thin. However, the low exposure allowed the image of the petals to fall on the straight line portion of the characteristic curve. The result of printing this negative on a long-toe paper is shown in Figure 3. Notice how the separation



"From the Rubaiyat"

R. M. Hermes

Figure 2. A full scale, low key print obtained by full negative exposure, shortened development, and printing on a short-toe paper. For data, see text.

between the blossoms and the background has been largely lost, but the general tone is extremely high. A much better print was obtained by using a short-toe paper. This print is reproduced in Figure 4. The paper used in this case is Brovira Soft in Agfa 125.

The situation here involved is the case of underexposure discussed in Part Two. There we saw that printing on a short-toe paper would give maximum highlight separation. In such a set-up as this, though, we have



Figure 3.

Short scale, high key prints on a long-toe paper are not usually successful.

no shadow detail to lose. Hence, a print from an underexposed negative on such a paper is the solution of the problem. We summarize this in

PRINCIPLE 5: For high key, short scale prints, the negative should be given minimum exposure, normal development, and printed on a short-toe paper.

Finally, let us consider a low key, short scale print. In such a case, it is necessary to keep full, but soft, gradation in the highlights, while not losing texture in the darker portions of the picture. In contra-distinction to the high key case, the lighting for a low key print is usually contrasty. Hence it is necessary that we suppress gradation throughout the entire print. Let us look to Part Two again. Full exposure will flatten highlight detail, but will augment shadow gradation. Underexposure will decrease shadow detail if the print is on a short-toe paper. On a long-toe paper, negative underexposure tends to soften the highlights but fails to do the same to the shadows. Our only choice, then, is to flatten the shadows by gross underexposure of the negative while flattening the highlights by printing on a short-toe paper.

The question might arise: "Why can't we accomplish the same result by giving normal exposure followed by short development?" Well, let us see: If such a negative were printed on a short-toe paper, the highlight gradation would be much too harsh for the rest of the print. Printing on a long-toe paper would open up the shadows too much. The proper procedure is set out in



"Cadenza"

R. M. Hermes

Figure 4. We separated the delicate highlight tones here by underexposure and normal development of the negative, and printing on a short-toe paper. The data are given in the text.

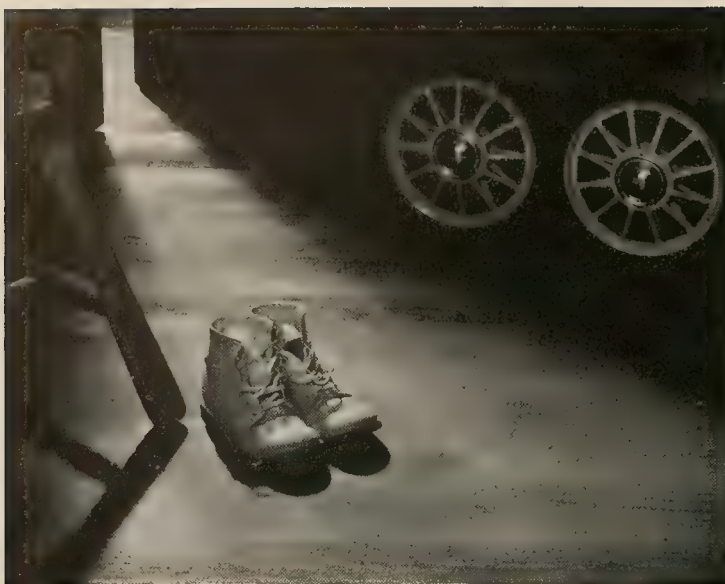


Figure 5.

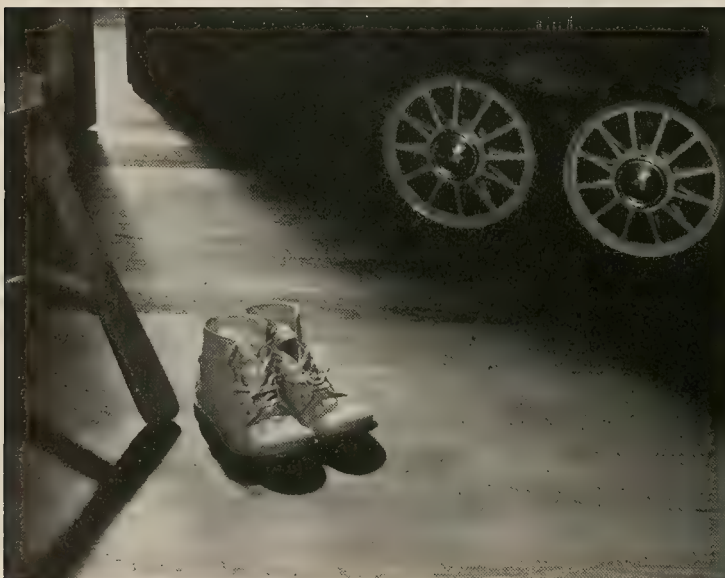


Figure 6.

Figures 5, 6, 7, and 8: Figures 5 and 6 are from a negative given one-fourth the exposure indicated by the exposure meter. Figure 5 is on a short-toe paper, while Figure 6 is on a long-toe paper. Note how the shadow detail just to the left of the buggy in Figure 6 is better than that in Figure 5. Also the side of the shoes toward the chair is not quite so harsh in Figure 6 as it is in Figure 5. In both prints the floor texture is very fine.

Figures 7 and 8 are from a negative given the exposure indicated by the exposure meter. Figure 7 is on a short-toe paper, Figure 8 on a long-toe paper. Again, the shadows just to the left of the buggy are much more open in the long-toe paper than in the short-toe paper.

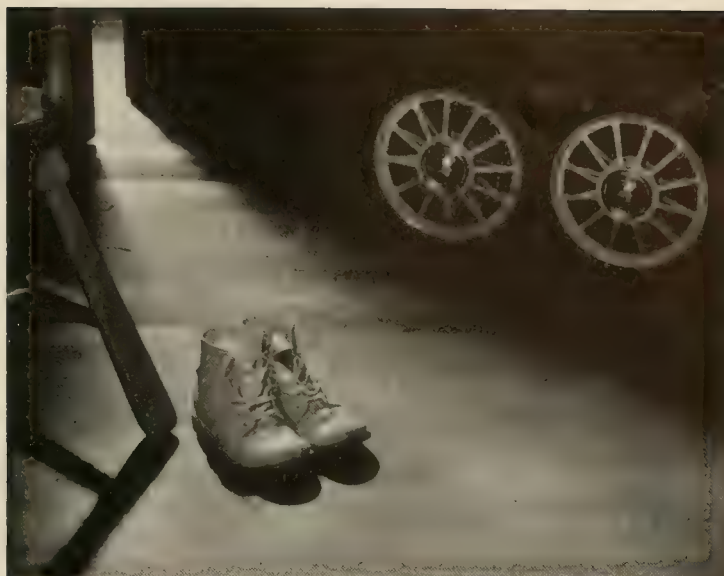


Figure 7.



Figure 8.

As between Figures 6 and 7, the shadows to the left of the buggy are almost the same, although those in the latter are a little darker. However, the texture in the floor in Figure 6 is much richer than that in Figure 7. Figure 6 is a print of quality, the other three lack its richness.

Both negatives on Eastman Portrait Pan, developed in Eastman D-76 for 20 min. at 65°F. (Tank).

PRINCIPLE 6: For low key, short scale prints, the negative is given gross underexposure, normal development, and printed on a long-toe paper.

As examples of the application of this principle, we have Figures 5, 6, 7, and 8. In these, the problem was to convey the feeling indicated by the title: "Sh-h-h!" Two No. 2 photofloods were used. One was placed outside the door in the back, the other was placed next to the camera and was diffused by white sheeting. The front light was used only as a fill light on the shadow side of the shoes, but it brought up the shadows in the vicinity of the buggy to a considerable extent. In accordance with Principle 6, the exposure given was one-fourth that called for by the exposure meter. The prints from this negative are shown in Figures 5 and 6.

At the same time, a negative was made, for comparison purposes, giving the exposure indicated by the meter. Our foregoing considerations had shown that if this second negative were given short development, the shadows would be much too open. Hence, it was decided to give this negative normal development and to attempt to suppress the shadows by overprinting, that is by over scale printing and exposing the paper so that the highlights would be fully exposed, thereby causing the shadows to go almost completely black. Prints from this negative are shown in Figures 7 and 8.

For a discussion of these prints, see the legend to the illustrations.

Principles 1 through 6 are only a few of the many valuable conclusions that can be drawn from a critical study of the characteristic curves of papers. In conclusion, we can point out that the making of the negative for a straight print need not assume the paramount position which has heretofore been accorded to it. The application of Principles 1 and 2 allows us to make quality prints from any negative from which a good contact print can be made. On the other hand, the more difficult problems of variations from the straight print can readily be handled by principles set out in this part.

All this is not to be understood as meaning that just any old negative will do. But it does mean this: The print is the goal, the negative is only a means to an end. And any negative which will lead to the print we want is, in this view, a perfect negative. If we understand the nature of the papers we use or which are available to us, then it follows that the making of a satisfactory negative will be a much easier business.

Now it is true that the application of these principles requires the use of at least two types of papers, together with their proper developers. How weighty is this objection? Among the more serious amateurs, there are comparatively few at the present time who do not use as a matter of course a variety of films. We all know that portrait film is not satisfactory for landscapes, and that commercial film is not adequate for portraits. We know that to insist on using only one film for all types of subjects "because it's too much trouble to handle a variety of films" leads only to difficulties and disappointments. Why, then, should we expect to get by with only one type of paper, particularly in light of the fact that using two or more papers actually simplifies our negative making? After all, is it not better to take the time and trouble to make one truly excellent print than to turn out several that are only good?

Finishing Tips From A Pro

Al and DeVera Bernsohn

FIRST rate amateurs come to him whenever they want extra special prints made, from their negatives, to send to doting relatives, or to decorate their homes, or even to enter in competitions that don't require that the finishing be done by the entrant. That's how good S. J. Silverstein, Chicago photofinisher, is.

He brings out the best in the negative—sometimes wrings it out!—with the aid of a battery of diversified enlargers, some equipment he bought in the same sort of places where everyone else buys photographic equipment, and a few simple gadgets he rigged up himself.

Take his safelite. It's a Series OA one used for viewing prints in the developer. It hangs directly over the developer tray. But it uses a 40-watt bulb! This would mean grayed prints if the light were kept on throughout development. A 25-watt is recommended for these safelites. Therefore Silverstein uses a foot or knee switch to turn on the light in order to view the print after development has progressed at least half the time listed on the instruction sheet that comes with the paper for the formula and paper he uses. The brighter bulb gives him enough light to get a fairly accurate idea of what the print will look like when it dries. He can judge developing time better. Seldom are his prints too light or too dark. (A green Christmas tree bulb in a small night lamp lets him read the darkroom timer to judge development time when working in the dark.)

But sometimes there's a chance of their not coming up to his standards. He has learned that if inferior prints can be detected while still in the hypo, time is saved and accuracy is gained in repeating exposures and controls exactly. He doesn't have to wait, then, until they're fixed and dried. So there's another light above the hypo tray, this one a white one. It too is rigged up with a foot or knee switch. Silverstein found, through experimenting, that a 50-watt light approximates normal lighting conditions. Brighter ones make too-dark prints look normal. Dimmer ones flatter light prints.

The third check-up for flaws is aided by a spotlight in the darkroom mounted high on the wall opposite the end of the room where the fixing bath is kept. Next to the fixing bath is mounted an ordinary sheet of



The printing paper is shielded with a piece of paper until the dodging device is adjusted. The nest of tables (mentioned in text) is shown in use.

Presdwood, somewhat larger than 16 x 20. The fixed print is given a quick rinse and slapped up against this board. Its moisture holds it in place. The spotlight is glared on the print and Silverstein gives it a final critical inspection before approving it enough to wash, dry and mount it.

That's just the inspection phase of his enlarging!

At work this photofinisher checks every negative with the aid of a 5 x 7 viewing box to find which parts need cleaning and get some idea of how to tackle it. Most negatives are dirty. The larger ones are cleaned with a camel's hair brush. For smaller ones he uses an alcohol solution prepared at the drug store of:

Ethyl Alcohol	85%
Methyl Alcohol	10%
Aqua Ammonia	5%

He's equally careful to clean the enlarger lens regularly, wipe the lamp every now and then and clean off the condensers with lint-free cloth or chamois. Whenever he cleans lamp and condenser lenses he re-checks the enlarger for light uniformity by inspecting the image it throws on the easel when no negative's in the carrier.

Silverstein has worked out a theory that the various contrasts of the different manufacturers' papers are not uniformly made. He has turned this to good advantage by matching up a couple of manufacturers' lines to get seven gradations! He always keeps a plentiful stock of all on hand to avoid the temptation of trying to get a print on the wrong paper for any



S. J. Silverstein



The fixed, but unwashed print is given a final critical inspection under a spot-light.

particular negative. The seven gradations he uses are:

1. Kodabromide	1
2. Kodabromide	2
3. Velour Black.....	2
4. Kodabromide	3
5. Velour Black.....	3
6. Kodabromide	4
7. Velour Black.....	4

To get the projection as nearly exactly the right size as possible without having to throw extremely large ones all the way to the floor or perform major hoisting or lowering operations on heavy enlargers, this photofinisher uses a series of different sizes of tables and stacks them one upon the other until he gets about the desired height. The table sizes are:

<i>Width</i>	<i>Length</i>	<i>Height</i>
29 inches	29 inches	20 inches
24 inches	24 inches	19 inches
21 inches	21 inches	9 inches
20 inches	20 inches	11 inches

Space is gained in the darkroom by keeping stores of paper in a cabinet on casters. The cabinet is rolled around to whatever enlarger the finisher is using and stored under a table between trips.

At least two test strips are made of most negatives, using two different grades of paper. Generous-sized test strips are used. Usually the two strips are developed simultaneously. The results are often surprising. Negatives



S. J. Silverstein

that seem suited for one type of paper sometimes turn out to be far better fitted to another, possibly two or three steps away!

Once the paper is chosen, the problem of controlling the projection enters in. Most prints can be improved by holding back some areas or letting some burn in longer than the rest of the print. After the proper exposure has been determined for the all-over print, Silverstein selects the areas to be printed in. He selects or makes an appropriate dodging piece, holds it in the approximate position wanted with his right hand. The sensitized paper is on the easel but he protects it by holding a piece of opaque cardboard between the dodging piece and the paper when the foot switch of the enlarger is turned on. By using this intercepting cardboard, the print-maker can determine just when his dodging piece is permitting the exact chosen area to shine through. Once it's in place the interceptor is whipped away and the added exposure is made without the customary handicaps of fumbling around before the printed-in area is located or trying to judge a dim red image accurately.

In order to save time and to keep his solutions as uniform as possible, the prints are developed in standard developers. This finisher uses only D-72 and D-52 for developing prints. The 72 is used for gloss papers, 52 for double-weight ones. Concentrated developing solutions are kept stored in small bottles, minimizing oxidation.

Another time-saver is the use of hypo made up in stock solutions. He uses the standard formula consisting of:

Solution A:

Two pounds of Hypo in a gallon of water.

Solution B:

Water (125° F.).....	56 ounces
Sodium Sulfit (dessicated).....	8 ounces
Acetic Acid (28%).....	24 ounces
Potassium Alum	8 ounces
Cold Water to make.....	1 gallon

After the sulfite has been dissolved and the acid added, the alum is fed in with constant stirring and the cold water poured in. Use one part B to four A.

The trays into which these solutions go are always unmatched. The developer tray is stainless steel because it's this one that causes the most trouble with staining. The shortstop bath tray is the same size as that used for the developer, but a less expensive, enamel one is used for this solution. The fixing bath is a much larger tray than the other two in order to permit the collecting of a number of prints in the solution without jamming them together or preventing some from submerging.

Seldom is a print produced in this laboratory without having at some point received ferricyaniding in a standard Farmer's Reducer. This applies, of course, to the prints made on other than glossy paper. The pictorial effect is heightened through the added contrast gained in strategic areas. Ferricyaniding is seldom found necessary on glossy prints because they naturally have more contrast.

The stock solution Silverstein uses is made up of one ounce of Potassium Ferricyanide in eight ounces of distilled water. It's used for all-over work or for local application with a brush (*not* mounted in metal) or a piece of cotton. For over-all application one ounce of stock solution is used with 100 parts of water. The photofinisher warns that the water must be free of iron or else blue stains and spots may show upon the print. He works by immersing the print in the 100 to 1 solution for five seconds, then immersing the wet print in hypo for five seconds. The print is washed quickly for a few seconds, studied, and, if necessary, again run through the reducing bath. A very few rinses should be sufficient to clear the highlights.

Local application benefits by a stronger solution, one part stock to 50 parts of iron-free water. The wet print is laid face-up on the back of an enamel tray, the solution is swabbed over the chosen area, hypo is swabbed on and the whole rinsed off. By rinsing frequently until the exact degree of reduction desired is obtained, there's less danger of staining the print. If the reduction is obvious, it's gone too far. For lightening dark areas, the finisher recommends stronger concentrations of the stock solution, possibly 20 parts of water to one of stock solution.

When the reduction process is complete, the print should be washed thoroughly to stop any chemical action.

The washed prints are almost invariably toned as a final step in this darkroom. Silverstein doesn't tone for vivid blues or reddish browns. He barely suggests the warmth of the brown-tone or the coolness of the blue.

For blue tones he uses Gold Chloride Sulfocyanate. To prepare this, Stock Solution A is made by dissolving 15 grains of Gold Chloride in 8 ounces of water. Stock Solution B consists of 20 grains of Sulfocyanate



"Where He Goeth"

Isadore Berger, Detroit, Mich.

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dissolved in 2 ounces of water. One-eighth of an ounce of the expensive Stock Solution A is added to the entire quantity listed for Stock Solution B and the print, *thoroughly washed*, is immersed in the solution until it has taken on the desired color. These solutions will keep fairly well in stock form, but once mixed may not be re-used, hence the small quantity given in this formula. We'll soon list papers with which it may be used.

In order to get brown-toned prints, Silverstein employs a Nelson Gold Toning Bath. Solution A consists of:

Warm Water (125° F.)	1 gallon
Hypo	2 pounds
Ammonium Persulphate	4 ounces

This solution should turn milky when the persulphate is added to the dissolved Hypo. If it doesn't, heat it up until it does turn milky. It's then cooled and solution B is added to it.

Solution B:

Cold Water	2 ounces
Silver Nitrate (crystals)	75 grains
Table salt	75 grains

Solution A-plus-B is used, stored and treated as a unit.

Solution C:

Water	8 ounces
Gold Chloride	15 grains

Use four ounces of Solution C, adding it slowly to A-plus-B. This bath

should cool and form a precipitate. The temperature should be brought down to 110° F. and the clear solution drawn off for use. The print is limp-wet when it is immersed in this bath for toning. The toning bath may be kept indefinitely and revived by the addition of more Solution C when it starts to lose its strength.

Any good black-and-white print may be toned in either of these solutions provided they're on appropriate paper. It's not necessary to have too dark or too light a print. No reduction or intensification needs be accounted for in the toning.

Best results are obtained on the slow chlorobromides such as Opal, Veltura or India Tone. Passable results are obtained with medium speeds in the chlorobromides, such as Cykora, Vitava Projection and Velour Black. Bromide papers are generally unsatisfactory in the Nelson Gold toner, but they work fairly well with the blue toner.

A third toner, used to obtain re-developed sepia tones on bromide paper, has a secondary purpose of being used for that one in 20,000 prints which might be toned red. The formula Silverstein uses for his re-developed sepia toner is:

Bleach	
Potassium Bromide	100 grains
Potassium Ferrecyanide	300 grains
Water	20 ounces
Re-developing Solution	
Sodium Sulfide	1/4 ounce
Water	20 ounces

Re-develop bleached print in this until entire image comes up. Then wash the print thoroughly.

Prints to be used with this toner should be made somewhat darker than normal because considerable reduction takes place in the toning process. This toner may be used in conjunction with the previously mentioned blue toner to obtain brilliant red tones! After re-developing in the sepia toner and washing the print thoroughly, it is immersed in the Gold Chloride Sulfocyanate solution. It comes up red.

In case hypo remains in the emulsion at the time the toning bath is employed, irretrievable damage may be done to the prints by the formation of light-colored bleached spots and the distortion of the colors. If in doubt about the efficiency of your washing methods, Silverstein advises use of a test until the washing efficiency has been determined. A standard test is the solution:

Potassium Permanganate	4 grains
Sodium Hydroxide	8 grains
Distilled Water	8 ounces

Water is drained, from the print being washed, into a glass. A drop of the foregoing solution is added to the drain-water. If the pinkish coloring is retained by the solution, the hypo has been eliminated. If the solution loses its coloring, hypo is still present.

These toners are used sparingly, as are all the controls Silverstein employs. They add that little extra touch. And it's the little extra touch that distinguishes an excellent print from a good one.

A Small-Print Salon?

William S. Davis

"The greatness of a work is not to be measured by its dimensions."

FOR several years the average size of salon prints has been steadily increasing until matters have now reached such a pass that it is practically impossible for the producer of a high-class small print to receive due consideration at the hands of most juries.

Were the "blow up" in size accompanied by a corresponding increase in quality, or even the steady maintenance of the best pictorial standards prevailing when considerably smaller sizes were the general rule, the only ground for adverse criticism would be the fact that many very capable workers are not equipped to turn out prints of extremely large dimensions and in consequence find themselves excluded from the salon field. In the case of individual exhibits, however, there are sometimes other grounds for criticism, for the increase in size has developed to a marked degree a tendency to turn out at any cost something that will make a "splash" on a gallery wall and attract immediate attention rather than produce a picture of solid quality which is interesting enough to live with. This sort of superficiality and love of bigness for its own sake is not by any means limited to photographic salons. It exists in many other fields, including art exhibitions in general, but in the long run the effort to out shout one's neighbor makes for a lowering of standards rather than sound progress in pictorial expression.

The great increase in print sizes has, curiously enough, occurred concurrently with the growth in popularity of miniature cameras, but may be accounted for by the efforts of manufacturers and users of such instruments to demonstrate what stunts of a technical nature can be performed. Whatever the reason, it is an unfortunate coincidence, since extreme enlargements from postage-stamp-size negatives are by no means always successful. Yes, I know good prints of remarkable magnification have been made and are being made, when sun, moon and stars, so to speak, all work together in producing a negative perfectly suited to the purpose. But for every one of this class there are dozens if not hundreds of other negatives that are fit only for enlargements of quite limited dimensions without sacrifice of quality. This may account for a noticeable trend during the past year or two toward somewhat larger negative sizes, since excessive concern over

reduction of grain and microscopic sharpness of the image tends to distract a worker's mind from those qualities that a pictorially significant print must possess.

In deciding upon how large a print should be, it is not merely a question as to how much magnification is possible without showing noticeable graininess or blurring. The much enlarged image may stand this test yet exhibit a subtle breakdown in gradation and textural rendition, as compared with a smaller print from the same negative. Again, many subjects that are attractive enough in a good print of modest dimensions lose, rather than gain, when spread over a much greater area. This is very often true of spontaneous, informal, renderings of material, which are generally most enjoyable when kept to small sizes, just as in painting a treatment that is charming and seems entirely appropriate in a small sketch usually appears out of scale if applied to a large canvas. Still another point that can be made in the interest of maintaining highest possible standards is the "thin" surface quality of excessively large prints. By this I mean the physical surface texture of the print-image, entirely apart from the optical rendition of the various textures possessed by the objects depicted. Every picture making medium has a distinctive surface character all its own. Thus, in oil painting the grain of the canvas or panel together with the manner in which the pigment is applied permits great variation in surface quality, not only in the surface as a whole but in individual areas of a painting. Such control permits an experienced painter obtaining great boldness and solidity in the execution of a large picture, whereas lighter mediums are seen to greatest advantage in smaller works, an extreme example being an ivory miniature. In this case, the base employed places an absolute limit upon the maximum size, owing to the impossibility of getting very large sheets of ivory from elephants' tusks. Aside from this, however, the peculiar charm of a fine miniature, brought about technically by the thin film of water colors applied to a translucent surface, would be largely lost at natural viewing distance were it possible to use the same medium upon a much greater scale.

To a considerable degree, the beauty of texture presented by various photographic printing mediums is either lost or weakened when prints are so large as to require viewing from quite a distance, though what can be considered too large for this or any other reason varies so much in particular cases as to preclude naming any measurement as maximum. It is a matter of trial and error, with good taste and judgment called into use in passing upon the results. One might well keep in mind, though, the saying of a noted artist, Alfred Stevens, quoted under the heading of this article—"The greatness of a work is not to be measured by its dimensions."

The foregoing considerations all lead to the suggestion that a place might be found in the exhibition field for a small-print salon, where definite limitation upon size would be such as to permit small prints of high quality being hung together harmoniously and enjoyed at close range in a more intimate setting than a large gallery affords. While such a show would permit workers to utilize many good negatives not suited to the making of extreme enlargements, it would not, like such competitions as the annual affairs sponsored by the newspaper publishers, mean a free-for-all open door for admittance of every snapshooter's commercially finished efforts.



"Dust Bowl"

Leonard Reisinger, Atlanta, Ga.

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On the contrary, the standards of judging should be such as to permit showing the full power of the camera as a means for well expressing much in a small space.

Tentatively, one might suggest 8 x 10 inches as the top limit in size of prints, with anything smaller than that down to, say, 4 x 5. A uniform mount size of 11 x 14 would take care of the print dimensions named.

From the purely practical standpoint, a salon of this type would involve considerably less expense in handling and display of work as well as much smaller outlay for materials and shipping charges on the part of those submitting prints. And if sent on tour, a salon of several hundred small prints could be shown in club rooms and other centers where wall



"Peacock Pattern"

Bernard Aronson, New York, N. Y.

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space is too limited to properly hang the typical modern large-print salon.

Though a show of the type outlined might be something of a novelty in photographic circles at the present time, the display of small works in other mediums is nothing new. For many years past several societies of miniature painters have conducted successful annual exhibitions, and at least two associations of etchers of national standing have devoted sections of their regular shows to prints not exceeding 3 x 5 inches in size—this notwithstanding the fact that etchings in general average much smaller in size than the majority of present-day exhibition photographs.

Cinema Section

Edited by

William A. Palmer

Hollywood "Discovers" The Amateur

AT ONE time the technical advances in amateur filming moved toward one objective—to approach more closely the Hollywood procedure and quality. Today we see a Hollywood in a dither working on several ideas with trick names to achieve results which amateurs have had within their grasps for years. This doesn't mean that the amateurs at last have surpassed the professionals in the art of cinematography, for goodness knows there are still myriad sins showing up on the inspection screens of the processing laboratories. The amateur field as a whole has yet to take with proper seriousness the one most important lesson from Hollywood—that a firm support for the camera is worth while.

In the many years since the introduction of 16 mm. film, the manufacturers of home movie equipment and supplies have progressively raised the level of their products to come nearer the professional standards. Better and more versatile cameras were developed; quieter and more brilliant projectors. Black and white film emulsions were given finer grain and greater latitude, then they were speeded up and made sensitive to all colors. The advanced amateur filmer bettered his technique by following the pattern of Hollywood lighting technique—reflectors for out of doors, effect lightings inside. He took advantage of professional procedure in cutting and titling to make sequences instead of snapshots. All efforts were aimed at approaching, but few supposed that there would ever be achieved, the regal quality of the theatrical screen.

Then came Kodachrome. Here was full color which could be handled by any amateur in a regular camera without attachments. Surprising to everyone was the fact that Kodachrome in 16 mm., not only gave superb color, but had characteristics that surpassed the best black and white emulsions. Specifically,

Kodachrome had practically non-existent grain because of the dye images and was more uniform from the standpoint of density variations and processing irregularity than was the black and white reversal film. Here was something waiting to be "discovered" by Hollywood.

In the matter of optical equipment, the 16 mm. amateur has had very few focussing problems, for the short focus lenses inherently have such a tremendous depth of focus, that adjustments can be dispensed with at medium and small apertures when shooting all scenes except big close-ups. Thus, the popularity of the so-called fixed focus lenses which have no better "carrying power" or depth of focus than any focussing lens at the same aperture. The fixed focus ones are made without adjustments because, in their range of apertures, focussing is unnecessary. The result has been that 16 mm. photography usually shows scenes in which all objects both near to and far from the camera are sharply defined.

Thus, unappreciated by many amateurs, there have been two things about his hobby that even Hollywood could not boast: a near perfect color process that does not demand a National Defense budget, and lens systems which can record all objects near and far with wire sharpness.

Citizen Kane Starts an Epidemic

Recently the Orson Welles picture "Citizen Kane" hit the first run theaters in a blaze of press releases that spoke of the revolutionary cinematography of Gregg Toland, hinting at new, complicated, and highly original apparatus that enabled the ingenious producers to make motion pictures of such startling originality that former techniques would have to be discarded. A name had to be dreamed up for the new technique and so it was dubbed "pan-focus" and the press agents went into yards of copy about this new type of lens that could make such marvelous pictures.

The public took to "Citizen Kane" as shown by the box office receipts and non-technical Hollywood went into a dither. Everywhere was heard talk of the new cinematography, of the tremendous depth and sharpness in the scenes. The technical men must have been quite amused, most of all Toland and Welles. The press agents had done their jobs well and the box office was doing nicely.

Actually, "Citizen Kane" had many unique characteristics which made it top notch entertainment, but it was not through any new invention. The startling innovations were the clever uses of well known and long since tried methods of camera technique. The only new thing in lenses was the use of the new coating process on conventional lenses to enable them to work under more adverse conditions such as shooting into the direct glare of an unshielded lamp. Toland and Welles decided that they wanted a combination of the extreme realism of the moving picture close-up with the grouping of actors as in legitimate stage practice. The result was the need for showing full head and shoulder shots of characters in the foreground and at the same time see full length views of other characters at some distance, both groups to appear in perfect focus.

To achieve this result of extreme depth of focus, Toland made use of several factors. He used shorter focal lengths which at the same aperture as the regular lenses have a greater depth of focus. At the same time the shorter focal lengths gave an extreme wide angle with its attendant exaggeration of distances. To enable very small apertures to be used, Toland used the fastest film, greatly increased the usual quota of lights, and installed the coated lenses

which are some 30 to 40 percent more efficient. None of these departures from the usual photoplay technique were of themselves particularly responsible for the unusual character of the Welles opus. But combined with the weird camera angles and bizarre lighting, the average movie-goer was willing to accept the press agents' claims at face value.

Still all the talk in Hollywood about "pan-focus" has lead many producers to follow the example of Toland and Welles and go in for extreme sharpness of all objects in the scene. It has even brought to the foreground a method of achieving complete depth of focus by the use of special apparatus. This method, devised by Alfred N. Goldsmith, makes use of a changing set of focal planes created by rotating lenses and synchronized with flashing lights which illuminate only those objects to which the lens at the moment is focussed. With this system, known as the Increased Range* or "IR," the focus of the lens is changed three or four times during each frame while the properly synchronized lights are flashed to illuminate the zone of critical focus. This is really getting into new procedure and complicated apparatus which may some day be a regular part of theatrical production.

But no matter how complicated the apparatus, it can do scarcely more than achieve the results in depth of focus that any amateur 16 mm. or 8 mm. worker has at his command without any special trouble. The usual 25 mm. objective on a 16 mm. camera when used at F:3.5 or smaller apertures, has as much depth of focus as any of the arrangements in "Citizen Kane." And as for the 8 mm. camera lenses and the 12.5 mm. "Hyper-Cinor" attachment for 16 mm. cameras—they have a depth of focus that can only be described by the Hollywood term—colossal! We amateurs don't know when we are well off.

Hollywood Discovers Kodachrome

In color photography, Hollywood has been at a terrific disadvantage as compared to the amateur. There has been Technicolor, a magnificent three-color process, but one which requires a special camera utilizing three separate films, a crew of scientists, and an astronomical budget. The small producers of westerns and shorts simply can't afford such luxury. Therefore they have been using two-color processes. These methods of color photography, besides having a restricted color range, still demand two separate films in the camera. A standard camera is used, being fitted with dual magazines to run the film through in "bipack," that is, the two films are run through the gate in contact with each other, faced emulsion to emulsion. This complicates camera procedure and results in an image on the second negative which has poor definition, since it is recorded through the emulsion of the front film.

One might naturally wonder why 35 mm. Kodachrome and duplicates therefrom were not made available. This would be a logical procedure purely from a technical standpoint, but from a financial one, the 35 mm. prints would be much too costly for general theater distribution.

Then some bright technicians in Hollywood, perhaps jealous of amateurs with their wire-sharp 16 mm. Kodachrome with its remarkable color fidelity, tried the combination of 16 mm. Kodachrome as a master film enlarged to 35 mm. two and three-color prints for theatrical release. The results were aston-

* For further details see the January 1942 issue of the Journal of the Society of Motion Picture Engineers.

ishing. Not only did the grainless 16 mm. Kodachrome enlarge satisfactorily from the standpoint of screen steadiness and uniformity, but the definition was better than the average "hipack" process. We do not know who should be credited as the first to try the "blow-up," but at the present time there are at least four concerns doing this work. Even Technicolor, the most eminent of theatrical color processes, has made three-color prints from 16 mm. with excellent quality. Cinecolor, long known as a prime laboratory for two-color prints, is also furnishing two-color and experimenting with three-color as is the Hollywood Colorfilm Corp. which is using the Gaspar color process. In the San Francisco region, the Multichrome laboratories of San Rafael are making enlargements in two-color.

Here is a turn of events that has a slightly humorous twist for the amateur to contemplate—the professional theatrical producer having to learn how to use 16 mm. equipment. We wonder whether the Hollywood greats might not feel a little silly, "emoting" before a modest 16 mm. camera.

Of course, this is a little far fetched, for Hollywood likes to do things the hard way and while the Cine Kodak Special, the Bell and Howell 70 D, and other advanced cinemachinery has plenty of precision for the job, the producers will lose no time in making or obtaining 16 mm. cameras that at least look the part of the usual 35 mm. units. Theatrical production demands noiseless operation, full 400 foot film capacity, and synchronous motor drives, all of which call for bigger and more impressive structure. But we amateurs can feel very superior anyway in the thought that we were ahead of the professionals.

The Image of Freedom Competition

The following review by Walter Rosenblum is reprinted from PHOTO NOTES, published monthly by The Photo League, 31 E. 21st St., New York City.—Ed.

A few months ago photographers and photographic groups throughout the country were invited by the Museum of Modern Art to enter a photographic competition called "The Image of Freedom."

The invitation asked the following questions. "What, to you, most deeply signifies America? Can you compress it into a few photographic images?" Here was a chance for photographers all over the country to show through their medium just what America meant to them.

The rules accompanying the invitation deserve special mention because of their democratic character. Everyone was eligible to enter. To insure impartiality, only a number instead of the photographer's name was to appear on the back of the print. There was one question, however, which many photographers raised. The Museum had announced that it would pay \$25.00 for each print accepted. Shouldn't a photograph, which was to become a part of the Museum's permanent collection deserve better financial remuneration.

But, at one stroke, the photographer had gained some of the rights which had ever been the goal of the creative artist. Entry was open to all, there was no pre-selected

list of "favorite sons," and the judging took place without the names of the contestants being known.

After a great deal of anticipation, the opening date of the exhibition arrived. Our excitement had been previously heightened by the announcement that 13% of the prints accepted by the Museum were the work of Photo League members—an excellent representation of our work in a national competition.

When, on the opening day, I examined the photographs, I was greatly disappointed. The call had gone out to all the photographers in the country to show their own personal conception of "America." The show on the Museum walls was no fitting reply to the demand.

Why was the show disappointing? Why did it fail to click? It failed because the photographs were not sufficiently representative of America. The line which many of the photographers adapted was too narrow, and failed to take into consideration many of the broader aspects of American Life. To re-evaluate their relationship as photographers to the world about them, appears to be the most necessary adjustment many of the photographers, who competed in the exhibition, must make. To elaborate—The museum invitation contained a terse question. "What, to you most deeply signifies America?". A simple question it would

seem, but one which was, in reality, as important to the photographer as any he could ask himself. Why are you alive, the question asks? Who are your friends? What is your relationship to the people around you? What creative work are you doing? What are you doing to build a better life for you and the people around you? The answers to all these questions would be deeply engraved in the lines of the photograph.

America and its democracy must mean something special to each photographer. Here he was asked to show what it was. Generally speaking, our democracy gives us many freedoms. The right to vote, the right of religious worship, the right to join a trade union, the right to have our own representatives in our government. In essence, the Museum has asked us what in this country is worth defending? What differentiates it from Nazi Germany? Of course, as many of the photographers showed in the Museum competition it is to a certain extent our beautiful country, the trees, the skies, the very earth which we all hold so dear.

But isn't there something more important than that now? Isn't the Image of Freedom something bigger, something more vital? Isn't it that very human quality that differentiates a Nazi Storm Trooper from a real American. Isn't it that which is reflected in the works of Lewis Hine, the people who built the Empire State building, the oppressed who come to this country for refuge?

Isn't it the farmer of Dorothea Lange, the sharecropper's brave wife? Isn't it the complete body of work of the F. S. A.? Isn't it the worker in the mill, in the shop, in the factory? The teacher who can teach as he pleases, without following a regimented text book drawn up by the Nazis? Isn't it reflected in these people who have a stake in our democracy that they are proud of and are willing to fight for to defend?

Isn't it the people who organized Ford at the cost of their lives, the American boys who went to Spain to stop the fascist invader before he was able to spread his power. Isn't it the air raid warden in the city streets, who stands with his head so high, because he is doing his bit for his country? Isn't it that American, who after a hard day's work, visits a Red Cross Station in order to donate his blood to the cause of democracy, to that cause which will give us a better chance of retaining our own freedom.

These are the places where the photographer must go to take pictures. These are the things which his camera must cry out are worth defending. Go to the people, to the auto workers in Detroit, to the transport workers in New York, to the Farmer's Union in Oklahoma. Let us photograph the people who are making America a finer place for us all. These are the things which our pictures must show. These are the things which we must reaffirm.

I was greatly surprised that most of the creative photographers in America were not represented. Where were all the F. S. A. photographers, the newspaper and magazine photographers, the young creative people who have been doing such fine work? It was then that I remembered the difficulty many of us had in deciphering certain legal

terms which were contained in the Museum announcement. In its contest rules the Museum demanded sole and exclusive rights to any photograph which was purchased. Much of the creative work in photography, work done by these photographers is done while under contract. And so the Museum rule excluded their work. And not only that. Even if these photographers were to do work exclusively for this particular competition, the contest rules, by assuming complete copyright ownership of the photograph, forbade its use at any other time. Many photographers were unwilling, to sign away the rights to their most creative work for the \$25.00 offered by the Museum. Many Photo League members would have been kept out in this way if personal inquiry hadn't been made of Mr. Newhall of the Museum staff. Here we discovered that the question was merely a form question and had no real meaning. But nevertheless, others were confused, and by this error, the museum immediately cut off a great source of its supply of fine pictures.

There was also an error made, I feel, in the range of the judges which were chosen. For one thing, a great many photographers felt that the judges mirrored too much the Museum itself. Other judges should have been added who were a little broader in the scope of their experiences. It is true, and rightfully so, that in any competition, the judges reflect their own opinions in the photographs which they choose. It is also true that the judges chosen by the Museum reflected to a great extent, the same feelings and the same ideas about photography. This would naturally color the photographs chosen. Many photographers felt, that other judges should have been added who represent other trends of thought in photography. For instance more photographers should have been added to the panel. Photographers who would reflect the most vital work which is being done in photography today.

There are about 15 photographs in the show which deserve special mention as being particularly important. Important because they make a very valid contribution towards our life, and our way of living. They strengthen our belief in the people of our country. Sid Grossman's three pictures deserve special mention. Look at his picture of the Arkansas farmer, of the farmer in the Tenant's Union in Oklahoma, of the two bootblacks on the sidewalks of New York. The power, the emotional intensity comes through with a great emotional impact to the observer. Look at Pete Sekaer's wonderful studies of people, at Sol Libsohn's picture of the two boys speaking to each other. Or at Jean Johnson's picture of the little negro boy.

Here you will see some inkling of the important contribution these photographers have made, through their photographs, of a better understanding of what America means.

The Museum should be congratulated for a very sincere attempt to weld together in one show, some of the finest work being done in photography today. I am certain that their next effort will meet with greater success.

Walter Rosenblum.



"The White Pagoda"

Francis Wu, A.R.P.S., Hong Kong, China

First Award—Advanced Class

★ This fine picture owes its charm to unusual subject matter, an attractive decorative quality, a finely adjusted tonal composition and excellent technique which gives the pagoda in particular and the print in general a lovely luminous quality. Observe, for example, how the deep sky tone enhances the brilliance of the shining pagoda and at the same time holds down the prominence of the trees by reducing their contrast against the sky. Certainly it is plain that the tone value of the sky is tremendously important to the success of the picture. The tree masses serve admirably to break up what would otherwise be awkward blank spaces in the picture and they also add to the decorative aspects and provide a suitable setting for the building. It might help a little to include a bit more foreground, particularly if that would make it possible to show the base of the tree on the left.

Data: $3\frac{3}{4} \times 4\frac{1}{4}$ " Ica Reflex; Cooke F:2.5; $1/300$ th sec. at F:16 on Kodak Super XX; 3:30 P. M. in October; 11×14 " print on Kodabromide G3, in D-73 1:3.

Second Award

Advanced Class

♦ Dr. Ellis has made very fine use of an extended shoulder line to heighten the effectiveness of this portrait to a considerable degree. Observe how this very simple device justifies the profile view of the head and causes it to fit comfortably into the picture space. Further it provides a thoroughly substantial base for the head to rest upon and in some subtle fashion gives the picture a fluidity of movement that is most pleasing. It is unfortunate that bits of the far cheek are seen just above the bridge and just below the tip of the nose. One of the most attractive aspects of a profile is the clear, smoothly flowing line which the outline of the face presents. The present condition interferes with the full realization of that property. Dr. Ellis was no doubt aware of this, but he was also concerned with maintaining a nicely adjusted relationship between head and shoulders. That is just right as things are. It may have been possible to correct for the profile without spoiling the head-to-shoulders relationship by turning the head slightly and moving the camera a very little to the left, but that is a question which could only be answered during the actual sitting.

Data: $3\frac{1}{4} \times 4\frac{1}{4}$ " Auto Graflex; $7\frac{1}{2}$ " Kodak Anastigmat; $1/90$ th sec. at F:16, on Kodak Tri-X Pan, in D-76; out-of-doors in bright sunlight, 2 P. M.; 11×14 " print on Kodak Vitava Projection, in Kodak D-72; Flemish Gold toner.



"Portrait of an Old Lady"

Dr. Irving B. Ellis,
Oakland, Calif.

Third Award

Advanced Class

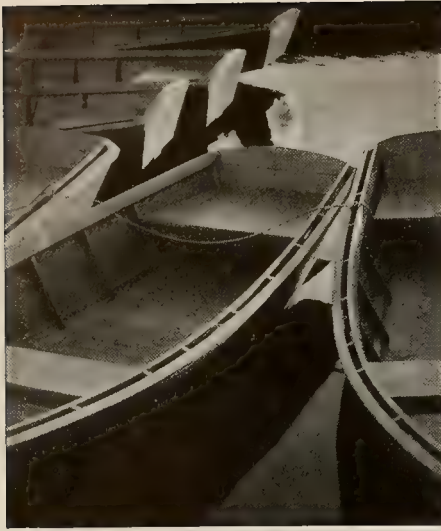
♦ In all of its general aspects this picture is very fine indeed. Both pose and expression are thoroughly natural and very easy to "take in." The lighting gives excellent modeling and the tonal relationships are well planned. The brightest part of the dress adjoins the face bringing about a strong concentration of interest. The medium tone of the background is fairly close to the tone of the chair thus avoiding a contrast of tone which would make the line of the back of the chair too noticeable. There are also a number of splendidly handled details in the picture. Particularly noteworthy is the remarkably fine posing of the hands. About the only detail which is not well handled is the draping of the dress. The way in which the folds of the dress project upward from the left arm of the chair is awkward and tends to catch the eye, and it would be possible to simplify the draping below and to the right of the figure.

Data: $14\frac{3}{4} \times 15\frac{1}{4}$ " print.



"Diary"

W. Ellis Teas,
Pasadena, Calif.



"Tied at Bay"
W. H. Billings,
Detroit, Mich.

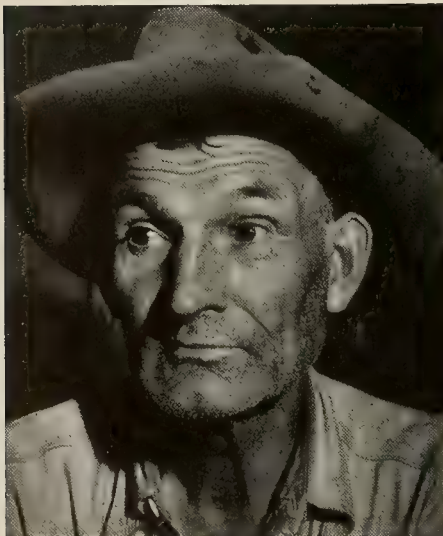
to cast a shadow on the water in the area toward the right side of the print.

Data: $3\frac{1}{4} \times 4\frac{1}{4}$ " Speed Graphic; Meyer Plasmalens; 1/25th sec. at F:11, on Agfa Super Pan Portrait; about 6 P. M.; $12\frac{1}{2} \times 15$ " print on Kodak Opal B, blue toned.

Fourth Award

Advanced Class

✦ The arrangement of the boats in this picture is quite intriguing, in that mass, line and tonality are all nicely adjusted. The material presents one rather difficult problem however, which has not been entirely solved. This has to do with the control of the bright patch of water which cuts the right edge of the print in the upper right. Quite obviously there is grave danger of the eye slipping out of the picture at that point. Control might be achieved in three ways. The building up of a stronger, or in other words, a brighter center of interest in the neighborhood of the stern of the second boat from the top, would attract the eye and help to hold it within the frame. This might be done with a light wash of new coccin on the stern of the second boat and on its corresponding reflection in the water. Such treatment might be combined with some dodging in of the bright water with increasing depth of tone toward the right. Such dodging, however, could not be carried very far without revealing itself as a false tone. Or, if physical conditions permitted it might have been possible



"Old Dick"
Kenneth F. Marsh,
Detroit, Mich.

case the subject should have been given something to look at; the pose should have been broken and the exposure made just as the subject was brought back into it.

Data: 14×17 " print.

Fifth Award

Advanced Class

✦ This picture shows interesting subject matter, is technically good and the head is well placed in the picture space. It lacks that quality which is usually referred to as "spontaneity." This is due to the fact that the eyes appear to be staring at nothing. No one can have any quarrel with the contention that a portrait subject should look natural and alive. It is axiomatic that good posing does not reveal the guiding hand of the photographer. Of late, however, there has been much over-insistence on spontaneity, to the point where one would be led to believe that the "candid camera" technique is the only right way to make a portrait. Such an attitude is obviously ridiculous. The applications of the candid approach are extremely limited in the case of true portraiture. There is no substitute for the control which the photographer must exercise over the subject, the setting, the lighting, etc., if all things are to be right in the finished picture. Inexpert handling of the subject may destroy spontaneity, but that does not mean that all controls should be tossed out the window. In this



"The 8:25"

F. J. Enos, San Mateo, Calif.

First Award—Amateur Class

★ Mr. Enos gives us a most interesting impression of commuter activity on a foggy morning. The picture, of course, would mean very little without the finely rendered atmospheric effect, but we should also appreciate that the train and the figures have been very nicely placed in the picture space. The large group of figures is handled with particular skill. The foreground figure dominates the group, of course. Observe how almost every figure is individually seen. By that we mean that no confusion of structure is introduced through one figure interfering with another. Such faults are almost inescapable when large groups cannot be carefully arranged, so the absence of such unfortunate accidents speaks very highly of the skill with which the camera position was selected. The fact that so many of the figures are reading newspapers is most helpful in conveying the idea of commuter activity.

Data: Leica; 50 mm. Elmar; 1/100th sec., at F:5.6, on Agfa Finopan, in D-17; 6½ x 8½" print on Defender Velour Black DL normal, in Defender 55D.



"Power"

*Jack Wright,
San Jose, Calif.*

Second Award

Amateur Class

✦ The awe-inspiring strength of this great machine is vividly presented here. Its great mass and weight is made more apparent through crowding in the picture space, while the smoke pouring from the stack makes the observer fully aware of the tremendous store of latent power which is waiting to be released. There is one weak spot in the arrangement which we would like to see corrected. This appears in the lower left corner. Some of the strongest contrasts in the print occur in this small area and the corner itself falls off to almost the blank tone of the paper. Through position and contrast this area calls undue attention to itself, to the detriment of the picture as a whole. A considerable amount of dodging in would greatly improve matters, would be very easy to carry out, and would not be at all noticeable.

Data: $13\frac{3}{4} \times 14\frac{1}{2}$ " print.



"Yum-Yum!"

*C. N. Tigrett,
Memphis, Tenn.*

Third Award

Amateur Class

✦ We brought up the question of spontaneity in connection with the fifth award in the Advanced Class. Here is a picture which has spontaneity to spare, and surely it is a most attractive quality. It is unfortunate that the hand and the candy have been permitted to fall out of focus. As a general rule it is imperative to keep such important foreground objects as sharp as possible. There is no reason why everything in this picture should not be sharp, but if conditions forced a large aperture we would prefer to see the ears fall off in definition, for such a condition would not be nearly so noticeable. The highlight on the upper left of the forehead is, no doubt, quite natural, but we would prefer to see it dodged in a trifle for the sake of concentration of interest.

Data: $2\frac{1}{4} \times 2\frac{1}{4}$ " Rolleiflex; 1/100th sec. at F:3.5, on Agfa Superpan Supreme, in Dr. Charles developer; 11×14 " print on Defender Veltura DS, in 55D; Flemish Gold tone.

Fourth Award

Amateur Class

† This subject fits the characterization beautifully, while the pose and action convey the story very clearly and directly. The picture suffers somewhat from the same weakness as does the preceding one, namely out-of-focus foreground objects. The fault is somewhat more serious here since the action directs the attention toward the doll so strongly. We must remember that definition falls off more quickly as we move toward the camera from the point of sharp focus than it does as we move into the distance. We must learn to make due allowance for this in focusing, and those who do not work with ground-glass focussing cameras will do well to check their set up with a depth of field table.

Data: 11 x 14" print.



"The Old Doll Mender"

William F. Betz,

Baltimore City, Md.

Fifth Award

Amateur Class

† There is no getting away from the fact that flash offers by far the best technique for making pictures of animals. Fast shutter speeds combined with small stops, wide open eyes, a subject undisturbed by hot lights, and brilliant, crisp rendition of textures are just a few of the important advantages which the flash bulb brings to the photographer of animals. This picture is not quite all that it might be technically for Mr. Dickson has chosen to attempt a very long scale subject and there is slight loss of texture and detail at both ends of the scale. We feel that the kitten's head is slightly too far to the right, under the conditions and would consequently like to trim in from the left until one pipe is eliminated and to add not more than an inch of space to the right.

Data: 3 1/4 x 4 1/4" Speed Graphic; Kodak Anastigmat lens; 1/200th sec. at F:22, on Kodak Panatomic-X, in D-76; by flash; 11 x 14" print on Defender Velour Black, in D-72.



"Smokey"

William Dickson,

Altadena, Calif.

Monthly Competitions

Scoring for Club Trophy Cups

The following won points for their respective clubs in the Advanced Class. Dr. Irving B. Ellis, for the Camera Club of Oakland; W. H. Billings, for the Detroit Camera Club; W. Ellis Teas, for the Pasadena "Y" Camera Club; Kenneth F. Marsh, for the Photographic Guild of Detroit; and Francis Wu, for the Photographic Society of Hong Kong.

The Miniature Camera Club of Detroit has changed its name to the Photographic Guild of Detroit.

The following won points for their respective clubs in the Amateur Class. C. N. Tigrett, for the Bluff City Camera Club; William F. Betz, for the Camera Club of Maryland; William Dickson, for the Foothill Camera Club; F. J. Enos, for the Photographic Society of San Francisco; and Jack Wright, for the San Jose Camera Club.

Contributing Clubs

Bluff City Camera Club (Memphis, Tenn.)	Pasadena "Y" Camera Club (Calif.)
California Camera Club (San Francisco)	Photographic Guild of Detroit
Camera Club of Maryland (Baltimore)	Photographic Society of Hong Kong (China)
Camera Club of Oakland (Calif.)	Photographic Society of San Francisco
Detroit Camera Club	Salt Lake Camera Club (Utah)
Foothill Camera Club (Pasadena, Calif.)	San Antonio Pictorial Camera Club (Texas)
Fort Dearborn Camera Club (Chicago)	San Jose Camera Club (Calif.)
Kamera Kranks (Durham, Calif.)	Sierra Camera Club (Sacramento, Calif.)
Lansing Camera Club (Mich.)	Southern California Projectionists Amateur
Mission Camera Club (San Francisco)	Camera Club (San Bernardino, Calif.)
Pacific Camera Guild (Sacramento, Calif.)	Tulare Camera Club (Calif.)

Standing of Clubs

Large Clubs—Advanced Class

Pictorial Photographers of America.....	5
Photographic Guild of Detroit.....	4

Small Clubs—Advanced Class

Pasadena "Y" Camera Club.....	6
Photographic Society of Hong Kong.....	5
Detroit Camera Club.....	2

Large Clubs—Amateur Class

Photographic Society of San Francisco.....	5
Camera Club of Oakland.....	4

Small Clubs—Amateur Class

Foothill Camera Club.....	6
San Antonio Pictorial Camera Club.....	4
San Jose Camera Club.....	4
Bluff City Camera Club.....	3
Camera Club of Maryland.....	2
Dallas Pictorialists	2

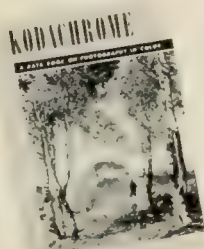
SUMMARY OF COMPETITION RULES

1. Open to all, amateur or professional, club member or non-club member.
2. Closing date 1st of each month.
3. Indicate class of entry (Advanced or Amateur) and club membership (if any) on back of each print. Technical data should accompany each print.
4. No entry fees or blanks required.
5. Stamps must be enclosed for return of prints.
6. Full explanation will be sent free on request or may be seen in January 1942 issue.

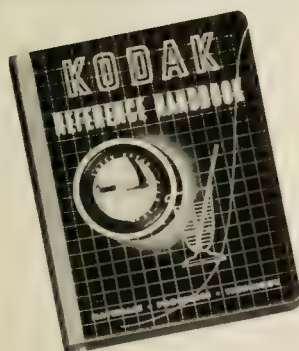
Build up a Photographic Library



KODAK DATA BOOKS The Kodak Data Books in themselves constitute a remarkably comprehensive photographic library. Literally packed with up-to-date, practical information, these books enable you to get the most out of your Kodak apparatus and materials—with a minimum of waste. And you don't have to dig for the information you want, for the Data Books are written in down-to-earth language—theory is clarified by graphic diagrams and helpful illustrations—practice is summarized in concise recommendations and tables. See these Kodak Data Books at your Kodak dealer's.



Kodak Films	\$.25
Filters and Other Kodak Lens Accessories . . . . .	.15
Photographic Papers . . . . .	.15
Kodachrome—A Data Book on Photography in Color . . . . .	.25
Photography with Kodachrome Professional Film . . . . .	.35
Infrared Photography with Kodak Materials . . . . .	.25
Slides and Transparencies . . . . .	.25
Copying . . . . .	.25
Formulas and Processing . . . . .	.25



KODAK REFERENCE HANDBOOK

The most conveniently planned photographic reference source available, this Handbook contains much of the contents of the Kodak Data Books as well as additional data and illustrations. Each section has an index tab, a list of contents, and a margin index which includes key processes and often-used data. The book is attractively bound in a water-resistant cover material to withstand darkroom use. The Kodak Data Sheet Packet "A" is available to supplement information on materials contained in the Handbook. Kodak Reference Handbook, \$2.75. Kodak Data Sheet Packet "A," \$.15. At your dealer's.



KODAGUIDES

For fingertip reference. Kodaguides are durably laminated, pocket-sized aids in the use of Kodak Films. The dial-type calculators provide easy direct-exposure readings, while the card guides give tabular data on Kodak materials. Kodaguides, priced from \$.10 to \$1, are obtainable at your dealer's.

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COMPANY**
ROCHESTER, N. Y.

Notes and Comments

New Products

In order to make it possible for any dark-room fan to test for himself and personally become acquainted with FotoTints for tinting movie scenes, black-and-white titles for splicing into color reels, and 35 mm. slides, Mansfield is now offering, for a limited time only, a special introductory trial-size of FotoTint.

Trial-size FotoTints come in gelatin capsules containing sufficient FotoTint to color 100 feet of movie film. All the user needs to do is to empty the contents of a capsule into water, immerse film in tinting solution for a couple of minutes, rinse and dry the film.

Six trial-size capsules, one each of Sapphire Blue, Amber Brown, Emerald Green, Royal Purple, Fire Red and Sunlit Yellow, all for 25c, are obtainable by writing to the Mansfield Photo Research Laboratories, 701 S. La Salle St., Chicago, Ill.

A new shredded-foil photoflash lamp, incorporating the latest research and best features of several G-E Mazda photoflash lamps, has just been developed, it was announced recently at Nela Park by GE's Lamp Department. The new flash bulb, named "No. 22," is designed to simplify the G-E Mazda photolamp line. The "22" will be available January 1.

The new G-E Mazda Photoflash 22 is rated at 60,000 to 65,000 lumen-seconds light output. This is 20,000 more lumen-seconds in light than is produced by the familiar 16-A flash bulb and 10,000 more lumen seconds than light produced by the present No. 21 lamp. In size and shape the new No. 22 is identical with the present No. 21.

Among other claims made for the No. 22 G-E Mazda Photoflash lamp by the manufacturer are the following. It is an all-purpose lamp for those flash needs where great quantities of light are required from a single source. It makes available to photographers a flash bulb producing increased light output with a wide peak yet without sacrificing peak height. Besides plenty of total light, the new No. 22 is said to have ample flash duration, consumes relatively little current, and is specially fused for satisfactory use on high voltage circuits. None of these advantages, it is pointed out, are at the sacrifice of proper flashing of the new lamp by means of batteries.

Development of a blue Mazda "mighty midget" Photoflash lamp No. 5 was announced recently at Nela Park by General Electric's lamp department. This new synchro-press midget flash bulb will be made available January 1.

Need for the new tiny blue flash bulb, Nela photo experts said, has grown out of the widespread use of miniature cameras designed for color photography. The blue No. 5 is, however, also adaptable to use with larger cameras.

Color coating on the new blue mighty midget has the same characteristics as that of the familiar G-E Mazda photoflash lamp No. 21 B. It has been carefully matched by Eastman Kodak Company to the color characteristics of Daylight Kodachrome.

Size and shape of the new G-E No. 5 bulb are identical with the clear No. 5, Nela engineers say the new blue midget will do for color photography what the famous G-E Mazda mighty midget bulb has done for black and white photography.

It gives the color photographer the small bulb size that goes hand and glove with easy portability. More than two dozen may be conveniently carried in the coat pockets. And the same goes for photographic effectiveness when the new G-E blue mighty midget photoflash lamp No. 5 is used in a proper reflector designed for its use.

Burke & James, Inc. announce a new type of three position mercury contact switch for use with double contact socket and double filament bulbs to provide selective lighting in projection printing.

Light intensities of 50, 100 or 150 watts are instantly secured by manipulation of the switch. This enables the operator to regulate the intensity of the light passing through the enlarger or printer to the density of the negative. Control of the light intensity is not secured by a rheostat to cut down the voltage—as that would affect the color of the light. Each filament burns at full recommended temperature to provide a white light of proper printing quality.

This new unit, known as the Solar Mercury Tri-Switch, is designed for table top operation. It is of the single throw, double pole type with levers operating the mercury contacts for silent, sparkless operation. The liquid like operation of the levers require practically no effort, thus eliminating the possibility of setting up vibration in the enlarger.

It will be available from your local dealer, including switch, cords and socket for \$5.50. Write Burke & James, Inc., 223 W. Madison St., Chicago, for full details.

Announcements

The Board of Directors of General Aniline & Film Corporation has accepted the resignation of Mr. Ernst Schwarz as director and vice president of General Aniline & Film Corporation and as general manager of the Agfa Ansco Division.

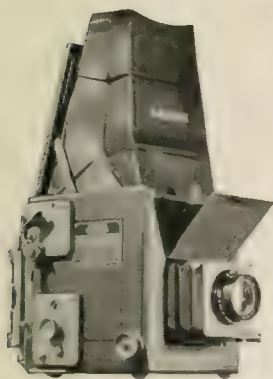
At the same time, President John E. Mack announced the appointment of Mr. Leopold Eckler, assistant vice president of General Aniline & Film Corporation, as acting general manager of the Agfa Ansco Division. Mr. Eckler has been for many years director of production for the Agfa Ansco Division. **Fifth Annual Speed Flash Contest is now under way.** This popular competition has boosted its awards from \$500 to \$750 in photographic merchandise. Closing date of the contest is March 31, 1942.

An Anniversary Speed Graphic completely equipped with Kalart Range Finder, Master Automatic Speed Flash and Sistogun, will be the grand prize. Second prize is a \$100

(Continued on page 121)



SPEED gets ANIMATION



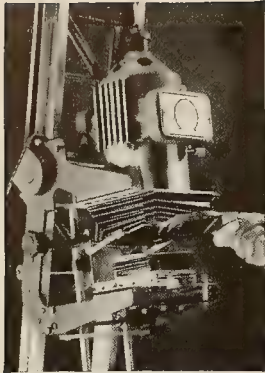
THE speed of a Graflex gives you easy command of all sorts of action—the finish of a race, a youngster's fleeting expression, or the explosion of a snowball. And in those thin-sliced seconds animation is captured and held.

Of course, Graflex offers more than speed (focal plane shutter speeds up to 1/1000). Direct, positive focusing on the hooded ground glass assures correct focus, aids composition. The standard Kodak Anastigmat lenses can be replaced with special purpose accessory telephotos.

Ask your Kodak dealer to show you the new Graflexes. They rate your inspection.

Graflex and Graphic cameras are made by the Folmer Graflex Corp.

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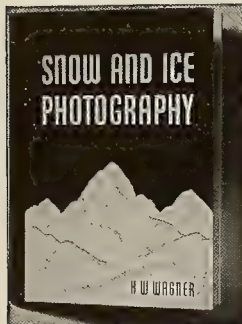
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(Continued from page 118)

course in photography at the New York Institute of Photography. Third award is a Solar enlarger.

The contest is open to everyone, the only requirement being that the photograph be taken with a Kalart Speed Flash. Entrants may send in any number of prints, mounted or unmounted. Both outdoor (synchro-sunlight) and indoor shots are acceptable. Color transparencies will receive the same consideration as black and white prints.

In addition to the ten grand prizes, the Kalart Company will have a monthly award of a DeJur Amsco exposure meter for the best photograph submitted during each of the months of December, January and February. Pictures will be judged on human interest value, subject matter as well as print quality and lighting effects.

Entry blanks may be secured from your photo supply dealer or by writing directly to the Kalart Company, Stamford, Conn.

To the growing list of **Kodak Data Books and Kodaguides**, which have proven of so great value both to amateur and professional photographers, the Eastman Kodak Company has just announced two notable additions: the **Kodak Data Book of Formulas and Processing**, and the **Kodak Densiguide**.

Covering, for the first time in one volume, not only all the Kodak Formulas but also the "why" and "how" of developing and printing, the new data book is one of the most practical publications of its type ever issued. Yet, in accordance with the general policy for Kodak Data Books, it is priced at the nominal sum of 25 cents per copy.

To fulfill its dual purpose, the **Kodak Data Book of Formulas and Processing** is divided into two sections. Part One describes the properties of the various solutions and gives detailed manipulative technique for all processing operations—so there will be no misunderstandings or blind alleys when it comes to the use of Kodak materials or formulas. The second part is an extensive **Kodak Formulary** designed to meet all requirements in still photography. Both sections are indexed for rapid reference, and a formula conversion calculator is included for the convenience of photographers who want to make larger or smaller total quantities of solution than given in the formula.

The completeness of this book may be gathered from a glimpse at its chapters. It includes comprehensive data on **Processing Principles**, **How the Developer Works**, **Composition of the Developer**, **Factors Affecting Development**, **Replenishers**, **Factors Affecting Graininess**, **Acid Rinse Baths**, **Action of the Fixing Bath**, **Necessity for Washing**, **Print Permanence** and even a word of caution regarding safelights. In addition the field of practical development and processing is dealt with in detail, including such subjects as **Tank and Tray Development of Roll, Pack and Sheet Film**, **Drying Films and Plates**, **Time-Temperature Development Charts**, and **Rapid Film Processing**.

Tables of development recommendations for **Kodak Films, Plates and Papers**, a list of **Kodak Chemical preparations**, and a very useful table of the **Keeping Properties and Useful Life of Solutions**, is included in addi-

(Continued on page 123)

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(Continued from page 121)

tion to full data on the famous Kodak Formulas.

The **Kodak Densiguide**, which has also just been issued by the company, is a compact calculator which provides a simple and inexpensive method for estimating gray scale densities on suitably prepared negatives. It is especially useful in making color separation negatives and color prints. When used in accordance with its directions the density readings thus obtained can be used in the control of processing conditions, to indicate approximate printing time in color printing, and to indicate the balance of color separation negatives. Available through all Kodak dealers the Kodak Densiguide is priced at \$1.

Picture takers who make their own prints and enlargements will be interested in the new informative six-page folder, "Kodak Photographic Papers," which is shortly to be distributed free of charge through photographic dealers. Explaining the various characteristics and uses of the following Kodak Papers of special interest and importance to amateurs: Velox, Azo, Ad-Type, Vitava, Athena, Kodabromide, Vitava Opal, Vitava Projection, and Kodalure. A chart of Developing Recommendations for each paper is included.

To meet the growing demands of flash photography and increase the scope of the Kodak Senior Synchronizer, Speedgun Model E, the Eastman Kodak Company announces an Extension Flash Holder for use with that unit. The new Extension Flash Holder is equipped with an insulated rubber cord which allows the photographer to place a light source for backlighting, sidelighting, etc. at distances up to 20 feet from the camera.

Similar in appearance to the battery case of the Kodak Senior Synchronizer, the battery case of the Extension Flash Holder is equipped with a ball joint and a clamping bracket having rubber pads for clamping onto a chair, table, or any convenient post. Since the flash bulbs and the camera shutter may be operated from the release of either the Synchronizer or Extension Flash Holder, the user has a remote control system if desired. The price of the new unit is \$14.55.

The **Lincoln Printing Company**, 735 No. Western Ave., Los Angeles, Calif., announces that they have printed model release forms ready for immediate delivery. An envelope containing 10 regular release forms and 5 special forms for minors sells for 15c. The forms measure only 4 x 6" and so are easy to carry as part of the photographic kit.

Fred P. Peel, F.R.P.S., F.P.S.A., announces his return to his former profession of Ordnance Engineer, for the duration. Mrs. Peel will remain on the job at the studio and will answer all inquiries and provide prints from any negatives on file, but no new photographic work can be undertaken, and all lecture engagements must be cancelled.

Morgan & Lester, 100 E. 42nd St., New York, N. Y., announce the publication of the 10th quarterly supplement to the increasingly popular and useful Photo-Lab Index.

The 10th issue of the Quarterly Supplement brings to subscribers some 10 new and

(Continued on page 125)

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Print developers are thoroughly considered with a discussion of how each one affects the characteristics, such as, the tone, contrast, etc., of a print.

The author, Edmund W. Lowe, is a chemist who has had a large share in bringing the art of development to its present state of perfection. His scientific knowledge and the results of his personal experiments with almost one hundred formulas and their variations are made available to you in this book. Any photographer who wants to understand development as well as follow "cook-book" directions, must read WHAT YOU WANT TO KNOW ABOUT DEVELOPERS.

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(Continued from page 123)

corrected time-gamma-temperature development charts . . . complete working directions for Agfa direct copy and direct duplicating films . . . revisions of data on hypo eliminators . . . new data on some Haloid and Defender photographic papers . . . latest revisions in the official Weston film emulsion ratings . . . information on new Wabash Superflash lamps.

Further, for the fifth consecutive time, with this supplement, there is a completely new and very important New Section 17: Photographic Optics. In its 40-odd pages there appears a complete set of formulas and tables for every actually useful photographic lens calculation likely to be encountered by the serious practical photographer. Stripped of most of the superfluous theoretical considerations, upon which the information is based, all data are given in a simple and legible form—available for immediate use. Practical examples showing the working of these formulas are provided in profusion with each of these formulas. Arranged in a logical sequence, the material clears up many of the prevailing misconceptions and offers practical and authentic material throughout. The 40-odd pages in this new section, too many to enumerate here, are fully indexed and cross-indexed, and clear and simple diagrams are appended to it for extreme simplification.

Classes in more than 370 subjects will be opened by the University of California Extension Division during January and February in San Francisco, Oakland, Berkeley, Richmond, Concord, Alameda and San Leandro. Irene Hofmeister, executive class secretary for the division, announced recently. Details on Photographic classes are given in the Club Notes section.

In most cases no previous college training is required for enrollment, Miss Hofmeister said. The course schedule is so arranged that most classes are given in the evening but many are offered in the afternoon and a few in the morning hours. Miss Hofmeister indicated that full refunds will be granted any person called for service or volunteering for the armed forces. Catalogs complete with course descriptions are available in any Extension Division office, 540 Powell Street in San Francisco, 1730 Franklin Street in Oakland, or 301 California Hall on the Berkeley campus.

Approximately 25 new subjects will be offered in the spring program. Courses titled Problems of the Pacific Area, Civilizations of Mexico, Nutrition for the Layman, Administrative Governmental Agencies, and others, will supplement the work of the subject groups now being offered in dealing directly with the world situation and the problems arising from it.

Other classes in art, decoration, economics, English, dramatics, education, agriculture, credit management, French, German, Spanish, history, law, mathematics, hygiene, engineering, personnel management, philosophy, music, political science, psychology, public speaking, science and photography, are also listed.

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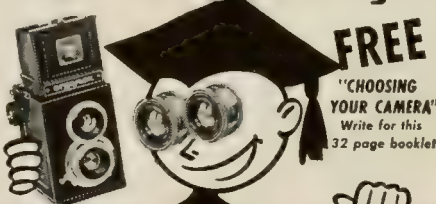
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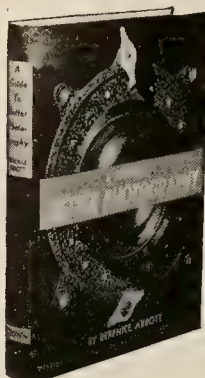
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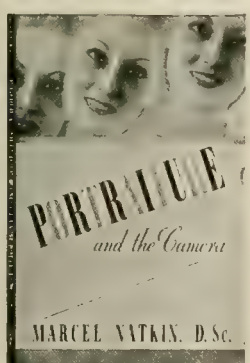


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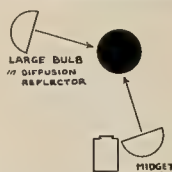
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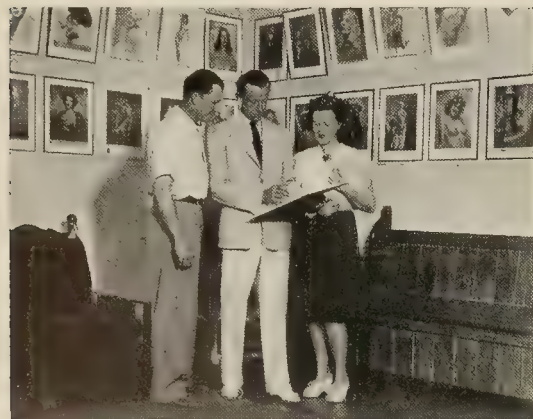
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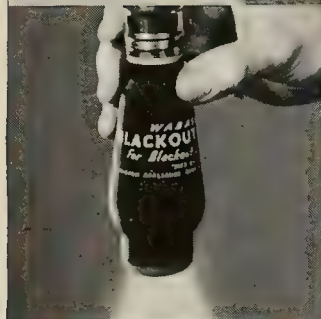
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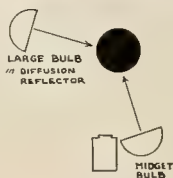
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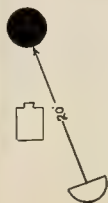


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Correspondence

Print Sizes

Dear Mr. Davis:

I want to agree with the stand for small prints, which you have taken in your article, "A Small Print Salon?" in the February issue of Camera Craft; but disagree with your implication that good prints cannot compete in any company, regardless of size.

I assure you I have no desire to pose as an expert. I have had some sort of a camera for thirty years. I have never sold a print, so no one has ever told me what prints I must make or how I must make them; I believe I have maintained my individuality, and I write this entirely as an individual's opinion.

For ten years now I have used a Leica. I tried all the fine grain films and developers, and I confess that in the past I have wondered about duplicating 16 x 20 grainless prints which others had made from "a part of a 35mm. negative on glossy paper." Fortunately (I now feel) I had a small dark room, some 8 x 10 trays, and neither the money for the equipment, nor the working room, for making big prints—so I never made any.

Then I began to wonder what it was that made certain prints stand out. Once in a while one would come along that had something that put it way out ahead. It wasn't size, nor definition—nor even technical excellence in some cases—but just an indefinable something. I don't know a single phrase to describe it. It is not just print quality, or composition alone—a photograph of a rusty padlock on a barn door could have both those, and still have no interest for me.

Meantime the bill poster phase has grown to where it seems a foregone conclusion with most photographers that 11 x 14 is the absolute minimum size which should even be exhibited; that either 14 x 17 or 16 x 20 is much better; and they are convinced that an 8 x 10 print is something to put in your watch, while a piece of paper 5 x 7 or 4 x 5 is good only for a test strip.

Apropos of this trend, and your suggestion, I have just received an entry blank from the Cincinnati Salon of Photography which has prints segregated into three divisions by size—8 x 10 and smaller—larger than 8 x 10, up to and including 11 x 14—and prints larger than 11 x 14. Well, my opinion is, this is just plain nuts. It's bad enough to be told you must mount your prints on 16 x 20 mounts, to hang vertically, but when they start segregating them by size only, that's too much.* I'm willing to put my 4 x 5 or 6 x 8 prints on 16 x 20 mounts; because it does help the hanging committee—but when I'm told I can't compete with all other entries unless I make my prints to size specifications, they can go jump in the lake. That smacks of fascism.

I don't care what size prints others make
(Continued from page 137)



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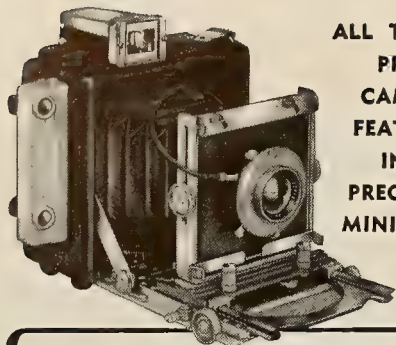
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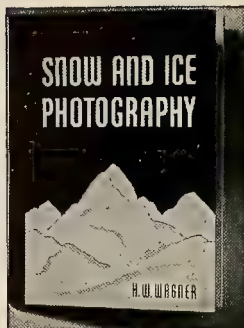
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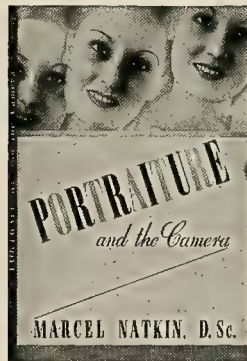
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SAN FRANCISCO, CALIF.

(Continued from page 135)

—my point is that it should be left to the individual. If he submits prints that won't go through the door, or that the jury can't see without a reading glass, and the jury turns him down, that's O. K. If, however, the jury has to judge prints by the square yard, the implication is that the smaller prints are unable to stand up beside the big ones, so are having special consideration. What are we doing, selling dry goods or making pictures?

As I said before, I don't care what size anyone else makes their prints. I know what I like, and I'm going to try and make prints that express what I mean to put in them. I refuse to be one of the sheep, and make big prints because it seems to be the trend. I resent being told where I can exhibit any print because it only covers 20 square inches, instead of 240 square inches. I'm going to make prints my way, any size I like, and if I want to enter a competition, I want to do so on equal terms with any other exhibitor, and leave the results to qualified judges who will consider all the points solely on their pictorial merit.

Sincerely yours,
F. J. Enos

San Mateo, Calif.

***It should be understood that the division into sizes is only for presentation to the jury. This conforms with a P. S. A. recommendation. All prints are equally in competition for the jury's acceptance.—Ed.**

Dear Sirs:

I have just read Robert Desmé's letter on print size in salons, and I completely agree. Although I have been a photo amateur for about four years, I, like many other amateurs, have made very few prints larger than 8 x 10. I am at present employed in a camera store and I can testify to the popularity of the 8 x 10. Also, as Mr. Davis says in his article, some negatives are limited to this size by grain and definition, but this does not mean that they are not worthwhile pictures. Fight for the smaller print and the American amateur will thank you.

Sincerely,
N. L. Calkins

Missoula, Mont.

Dear Sir:

"A Small Print Salon?" by William S. Davis (February) is right in the groove! Especially in war time. Those gigantic prints are only a curse on amateur competition, and very bad sportsmanship. Davis is right. Let's get back to good 4 x 5-inch to 8 x 10-inch prints. You've started something.

K. A. Y.

128 The Lane

Hinsdale, Ill.

Dear Sir:

Re: Mr. Robert Desmé's letter in February issue, of course judges should examine prints carefully and closely—photographic beauty is largely one of detail—not fussy, unimportant detail, but that which defines objects according to their surfaces and their

(Continued on page 181)

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"Lake Henshaw"

George Allen Young

“Escape” Photography

Jack Wright

THERE never has been a time when absorption in the hobby of photography was as enviable and invaluable as it is today. One reason is that there have been few times when the problems confronting mankind bulked as mountainous as they do today and when some means of mental escape was so important and needed.

Physicians and psychiatrists say that much of the heart trouble, nervous indigestion and similar ills which afflict us are due to worry. Doubtless they would say that it is far more healthful to occupy moments of sleeplessness wondering about your success in that salon or just how to trim that newest photograph, rather than worrying about the next aggression of the Nazis, or how the war will finally come out.

Photography, then, is today affording this valuable escape to tens of thousands. Portraiture, table top, genre—these and all the other branches have their devotees. To the writer landscape or seascape photography seems to afford the most complete and healthful escape. One reason for this is because it is usually pursued all day or for several hours at a time, thus taking one as completely out of himself as it is possible for any occupation to do.

Landscapes or seascapes may be photographed with any camera. The writer prefers a 4 by 5 Speed Graphic, with its ground glass. Some enthusiasts are satisfied with nothing less than an 8 by 10. Still others walk light and free with a miniature slung across their shoulders, saying they really prefer the slight softening which a 35 millimeter or 2¼ by 2¼ brings. A



Jack Wright

camera—any camera—some film, a filter or two, a pair of strong walking shoes and a tripod if desired and we are ready to escape from blaring radios and headlines of war.

The start should be made early, for the long shadows of early morning or late afternoon enhance nearly any outdoor picture. Whether the jaunt is made “solo” or in company will depend largely upon the companionship that is available. As will be pointed out later, many landscapes and coast-line pictures are improved by a carefully placed figure. On the other hand some companions are very distracting, particularly if their idea is covering ground instead of taking pictures. Nothing is quite so destructive of the happy and leisurely mood in which landscape photography should be carried on as to feel that some other person is waiting, champing at the bit and anxious to be off.

Since easy going pleasure, in addition to pictures, is sought, perhaps the photographer would do better to travel alone, unless he has a wife so inured to the vagaries of photography that she will lose herself in a book or in her knitting during those necessary and sometimes protracted periods when the photographer is studying his scene to determine the best angle and the best lighting.

Like most branches of photography, landscape and seacoast photography pay large dividends for careful study in advance of clicking the



Jack Wright



Jack Wright

shutter. Arriving at a scene which seems to have possibilities, the first step is to determine what it was which caught your eye. Once that has been determined—and it may have been a swirl of waves against a jagged rock, a stretch of curving road, a group of trees with the sea in the distance, a rambling old barn, a stretch of creek or any one of many other details—the next problem is to determine how the outstanding feature of the picture can be presented so as to produce the strongest possible impact, with all extraneous matter excluded.

You quickly learn that a movement of a few feet backward or forward or from right to left will make a vast difference in the way your picture “lies.” A sharp curve may be changed into a gradual one, a tree may be made more dominating—or less so—by a movement of a very short distance. The photographer with the ground glass will refer to it constantly as he moves about; the cameraman with a view finder will refer to it frequently as he seeks the best possible framing. This process, far from being tedious, affords just the absorption which is being sought and results in greatly improved pictures.

Over-ambition has spoiled more landscapes and seacoast pictures than any other one thing. Confronted with a vista which is majestic and overpowering, the photographer attempts to get it all in. But the Grand Canyon looks rather deflated when reduced to a piece of 11 by 14 paper and the same is true of most scenes which, at first glance, seemed overwhelming and grand. One of the most important processes, therefore, is



Jack Wright

that of selection—to choose one barn instead of an entire farm, one bend in a creek instead of half a mile of water, one or two trees instead of a forest.

One thing which helps in photographing those scenes which insist on being large and sweeping is to find something in the foreground which will give a feeling of depth and distance—for instance the best pictures of the Grand Canyon or the Yosemite have a tree or two in the foreground with the canyon or valley in the distance. A tree, a rock or some similar object can usually be found and how they do improve the quality of such pictures!

Once the best possible framing has been determined, the next decision has to do with lighting. Is the scene lighted so as to bring out the utmost in mood or dramatic quality? If it is morning, would late afternoon afford shadows that would be more picturesque? It may seem a good deal to ask a photographer to come back to a scene six or eight hours later, but if the scene is sufficiently intriguing it will be worthwhile.

When framing and lighting have been decided upon, there is the question of a person in the picture. There is no doubt that many a road, woodland bit or farm scene is given human interest and caused to “come alive” by a human being, judiciously placed. The placing should be where leading lines converge. The figure should not be so large as to detract from the scene by grabbing too much of the attention, nor so small as not to be easily seen. Neither should it be too near the edge of the photograph. The correct placement can be determined by study of the ground glass or view finder and should be worked out with care.

If the scene definitely needs a figure you may be glad you brought your wife or a friend along. If you are traveling alone you may be able to draft a passerby. Failing this, some well known photographers have been known to use a delayed-action gadget attached to the camera, which would, of course, be on a tripod. This would permit the photographer to get into the picture himself.

What the figure will be doing in the picture will be determined by the character of the scene. In some cases he will be walking—usually away from the camera. If the scene is less dynamic he may be seated, looking off into the distance.

Lighting, framing and the question of a figure having been determined, there is the problem of filters. Some scenes, where much foliage is apparent, are improved by lightening the foliage with a green filter. The wise photographer will take one negative with a filter and one without. Where much sky is included a yellow filter is definitely indicated. This will darken the blue sky to a pleasing gray and if there are clouds will bring them out. Clouds are often the most important part of a landscape or seascape. If there are clouds it is worthwhile to wait until they arrange themselves effectively. If there are no clouds and if the sky plays an important part in the picture the photographer can either return when there are clouds or expose a negative with no filter at all, to give a white sky, and print in clouds later. On no account should a large expanse of white sky be included in the final print, although a gray sky, dark at the top and growing lighter toward the horizon, is often acceptable. In some cases no filter at all will



Jack Wright



Jack Wright

be used for landscapes, the filter tending to destroy delicate gradations of aerial perspective.

It can readily be seen from all this that considerable time can be expended in the taking of one picture. There is no harm in that. If the picture is attractive it is well worth the trouble. If it later proves disappointing, the time will have been pleasantly spent, in any case.

As in most branches of photography, it pays to specialize. Some prefer mountain scenery, others scenes where trees are important. Still others enjoy photographing farms or creeks and there is an entire world of pictures along the seacoast. Specialization not only increases the photographer's knowledge of and consequent pleasure in certain types of photography but enables him to do better work.

Not only is the time of day important, because of its influence upon light, but the time of year is worth study. Is a given scene best in the brilliant light of summer or would it be improved when cloaked in a blanket of snow? Are the haze and fallen leaves of autumn preferable to the warm light and verdant grass of spring? These things are to be determined. And if it seems a good deal of bother to come back to a certain scene six or eight months later, reflect that one of the main objects of landscape photography is the type of "escape" mentioned in the beginning. If things go on as they are we may need "escape" as much six or eight months from now as we do today.

Maybe a Layout Will Get You A "Handout"

Thomas Welles

YOU'VE seen them many times in your own newspaper, and in the Rotogravure sections of the big metropolitan dailies. Layouts. They are those jig-saw puzzles effects—groups of related pictures that overlap and fit into each other (although they are not montages).

Their principal "raison-d'être" is, of course, to present completely, and in a manner most easily assimilated by the eye, a story that cannot be readily told in one or two separate pictures. There is a second reason for their being, though, and a reason of vital importance to every newspaper and magazine editor—especially today, when production costs are mounting: they save space, and, to some extent, reduce engraving expense.

And (sh-h-h; this is a secret, just between us!) they sometimes "white-wash" the photographer when his composition has been faulty. How is that, you ask? Well, practically all editors have a phobia against "mortises"—blank corners in pictures, or corners containing nothing of value to the story, but which must be included in the conventional "cut" to square it up. You see? In layouts you can overlap into these mortises, and, presto! they're gone, and no one the wiser! Thus it is evident that on occasions a layout will sell readily, whereas separate pictures, even though they be in logical sequence, would stand but a slim chance with space-conscious editors.



Figure 1. First step in making any layout is, of course, to make the prints.



Figure 2. Odd-shaped prints are cut to shape and outlined with a pencil after all square or rectangular prints have been cemented in place.

Now, as we shall presently see, that word "overlap" is a misnomer; literally, you cut into the various pictures, but the effect is the same. As far as the technicalities of photoengraving are concerned, there would be no objection to actual overlapping. The trouble is, rubber cement is the easiest mountant to use, and rubber cement, unfortunately, simply will *not* adhere to gelatin.

So now the question, how does one go about making a layout?

Well, the first thing to do is to study your negatives and visualize roughly how prints from them can best be made to "hang together." In this preliminary survey it should not be forgotten that the completed layout is to be regarded as a single composition, and, as such, should hold the eye within itself. In order to accomplish this it may be necessary to reverse one or more of the prints (that is, enlarge through the wrong side of the negative). For example, in the completed layout, Figure 5, the lower right picture is reversed; in Figure 6, the upper right, and Figure 7, the lower left. Of course, in deciding which prints, if any, must be reversed to make a good composition, one should be careful to see that nothing in the picture will "give him away" (such, for instance, as signs, numbers or insignia).

While this article is in no way intended to be a treatise on composition, it might be well to point out that it is practically axiomatic in art that the subject should not "look out of the picture." In other words, the larger portion of the picture area should be on that side toward which the subject is facing (although he can, of course, be looking directly at the camera). Now, since the layout is to be treated as a single picture, it follows that persons appearing near its edges should more or less face into it. Hence, the occasional necessity for reversing a print.

Having visualized, from the negatives, the general relative positions of the component pictures in the layout-to-be, and decided which one (if any) of the pictures is to dominate, the next step is to make the prints—by

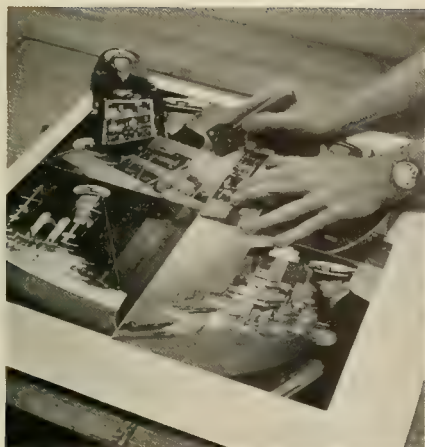


Figure 3. Following the penciled line with a safety razor is a tricky job, and it must be carefully done.



Figure 4. But peeling away the portions to be discarded is easy.

projection. Contact prints will not do, since they afford no control as to size. If any one print is to dominate the layout, a space should be reserved for it near the center. (It need not necessarily be the *largest* print; its position is of more importance than its size. For example, in Figure 5, the dominating print is the smallest of all.)

In practice I have found the easiest paper to work with is a double-weight stock with a semi-lustre (not glossy) surface, and 8 by 10 the easiest size to handle (although, in Figure 7, the star-shaped picture was printed on 11 by 14 paper). Double-weight paper has the advantage that it does not tend to buckle as much in drying as does the single-weight stock, and is, therefore, much easier to cut to shape and mount flat, while semi-lustre will "take" a soft pencil nicely for minor retouching and spotting, which glossy paper, of course, will not. Naturally, if the editor to whom you hope to sell insists on glossy paper, why, use it although, despite his prejudice and anything he may tell you, most engravers do *not* prefer it. (Eastman's *Illustrator's Special*, for example, which is made expressly for fine mechanical reproduction, has a semi-lustre surface.)

Your layout may be square or rectangular, whichever shape seems best suited to your pictures, but, ordinarily, it should be "squared up;" i.e., no picture should be dropped below the others. This is because engravings are charged for according to the layout's greatest dimensions, with no deductions allowed for space not actually used. The fact that all layouts in the accompanying illustrations are square is of no significance; they were made that way because of certain mechanical requirements peculiar to the Glendale (California) News-Press, for which I am staff photographer and artist. Likewise, unless you make a layout to order, do *not* cut out any portions like those shown in the illustrations and marked "Out for 2-column masthead." It is the practice of the News-Press to run these layouts on



Figure 5. If outlining and cutting have been done with utmost care, the fit will be perfect. Here is a completed layout.



Figure 6. Here's another style of layout, in which all pictures are given about equal prominence. Unless making a layout to order, do not leave any blank spaces like that in the center marked "out for 2-column masthead."

page 1 of section 2, dropping the section's masthead into the layout itself, but this is not a general procedure.

Having made your prints, the next step is to mark off on a large sheet of cardboard the outside dimensions of the layout (being governed, of course, by the size and number of your prints, with no reference to the size of the layout as it will appear when published), being sure that all corners are perfectly square. It is well, also, to pencil arbitrary guide-lines on the cardboard, to aid in mounting the prints. Taking a simple layout (Figure 5) step by step, Figure 1 shows the untrimmed prints laid out in their approximately correct positions on the cardboard.

The next step, ignoring, for the moment, the center, or dominating picture, is to trim the four corner pictures accurately and mount them on the cardboard with rubber cement. Both cardboard and prints should be coated with the cement to insure perfect adhesion.

Now, with a pair of shears, the center picture is cut to a shape that will fit into the "mortises" you have left in the central corners of the four prints already mounted. Placing it in position and holding it firmly with one hand, a penciled line is drawn around it (Figure 2).

Next, following the penciled line very accurately, the four mounted prints (but *not* the cardboard!) are cut through with a safety razor, (Figure 3), and the corners of the cut prints peeled away (Figure 4). If rubber cement has been used as the adhesive (and no other adhesive is satisfactory!) this may be accomplished easily. All that remains to be done is to coat the center picture with rubber cement and press it firmly into place, and we have the completed layout, Figure 5. (As I said before, ignore that "out for masthead" space.) Just by the way, this layout pictures a retired



Figure 7. Geometrical layouts are sometimes interesting, too. But it's hard to cut a picture to star shape accurately. Better make a paper or cardboard template before you attempt it!



Figure 8. Here, again, the smallest picture in the group (left center) was made to dominate because of its position. Get Uncle Sam's o.k. before submitting pictures like these!

mechanical engineer whose hobby is building electrically operated and radio controlled model battleships. The center picture was made to dominate because it is the "heart" of the whole thing—the radio transmitter which guides the models.

Another approach is shown in Figure 6. Here there is no one picture of dominating interest or importance, hence none is placed in a position of especial prominence. The layout pictures the activities of "alarm girls" in a central fire station.

A more geometrical design is shown in Figure 7, picturing life in an Army barracks. The star-shaped picture was made to dominate (as much by its unusual shape as by its position), and was cut to that shape to suggest that the dog is the "star" of the "show"—which he is. He is the company mascot.

In Figure 8, the same technique to gain dominance of one picture over the others was used as was employed in Figure 5—an odd-shaped picture, albeit of small size, near the center of the layout. The fact that this picture shows an airplane propeller, tells at a glance what the whole layout is about: obviously it deals with the manufacture of airplane engines. And here a word of caution: The pictures in this layout show work being done for national defense. It was, therefore, necessary to obtain publication release for *each separate* picture from the Army Intelligence bureau in Washington, D. C. Woe to the photographer or editor who publishes unauthorized pictures of defense activities in these times!

All pictures shown were made with a hand-held Speed Graphic camera and synchronized flashlight.

Pictorialism For Beginners

Harold G. Grainger, F. R. P. S.

Further Hints On Directional Lines And Their Importance In Picture Making

THOUGH directional lines and contours have already received attention in a previous contribution to this series of illustrated articles, examination of efforts recently displayed at a number of annual Club exhibitions as well as others contributed to locally circulating portfolios of pictures lead me to believe that the subject deserves a little amplification. There appears to be a noticeably obvious impulse, especially in early stages of pictorial expression, to secure, more particularly in figure subjects, certain patterns which, by long usage, are commonly accepted as desirable, without sufficient attention being paid to the avoidance of crudity. Now such enthusiasm requires tempering with discretion if results are not to appear inartistic.

When a formation of masses and contours, after attracting attention continue to give satisfaction, it will generally be found that in addition to being directionally commendable, variety enters into their make up. Most probably there is a judicious combination of curves and straight lines. Let us compare, for example, the group of children in Figure 1, with Figure 2. If regarded strictly on its merits as a picture the first named is disappointing; largely because of the conspicuous angularity of pattern. It is a pity because the attitude of each child is delightfully natural and free from camera consciousness; they stand out well from the background; the side lighting could not be bettered; (note the value of the shadows



*Figure 1, Above
Figure 2, Below*

on the path)—it is not pleasing chiefly because of the stiffness, the inelasticity of pattern; a series of small triangles within a larger, all-embracing one.

Look at the little girl for instance, with the kettle, a triangle insecurely poised on one of its points! Another, the two standing boys, is better because, thanks to their feet and shadows, it is securely based on the path; and still another is observable in the sitting boy. Most objectionable of all (artistically) is the one incorporating all the children, with apex the commencement of the shadow cast across the front of the pump by its roof. (The verticals of the pump, by the way, have a stabilizing influence in the pattern.) Had the middle boy been sitting and the outer one standing the greater variety in "line" or contour direction would have been much better, because then the present long straight line (imaginary, of course), linking up their three heads, would have been obviated.

Consider now the group of young artists (Figure 2) which, despite the confined situation, is an improvement on the pump scene. Here again the children are, fortunately, free from camera consciousness; thoroughly absorbed in their self-set individual tasks. The chief difference between the pattern or arrangement of this subject and its companion pump scene is the impression of a bold, sweeping curve linking up each individual figure into a compact group. The more pleasing arrangement embodies both curved and straight lines, and it is quite easy to trace in the attitude of the boy standing behind the iron fencing, a veritable "line of beauty" detracting not one whit from the appearance of upright, youthful vigor. The curves of the bicycle wheel and handle bar are useful foils to the straight lines of the iron fencing which, fortunately, is not too pronounced. A little additional subject interest, preferably in dark tones, in the lower left corner would have strengthened the composition.

Another disappointingly obvious triangle arrangement of figures is seen in "Kite Flying," Figure 3. Here an imaginary point rests on the rough grass and from it an almost straight line can be traced to the flyer's outstretched right hand. It is unfortunate that the boy on the extreme right turned around at the moment the shutter was released and that the distant church spire is immediately above the head of the principal figure. The very bad position of the kite in this print, an important item because it supplied the motive for the effort, forcibly demonstrates the necessity of being constantly on one's guard against placing anything of special interest in a corner or towards the margins of a picture. Everything possible should, on the contrary, be done to sustain attention well within the picture space.

The companion illustration, Figure 4, taken a few minutes later, is, though still based on the triangle (several can, in fact, be traced), a considerable improvement on Figure 3, chiefly because of a better grouping of the boys. The arrangement, however, although it shows much more diversity in "line direction" in the pattern, is not quite successful. For example, the boy in the light jersey should have been standing clear of the kite flyer. This, in addition to the long straight base line of the large group of boys could have been avoided. Complete success also calls for the movement of the boy holding another kite to a position between the sitting



Figure 3



Figure 4.



Figure 6.



Figure 5

boy with sleeves rolled up and the kite flyer. This amendment alone would, had it been carried out, have embraced all the boys in a much more satisfying, compact group.

It should not, however, be supposed that satisfactory arrangement of figures where they are included in some picture-making effort is always dependent on the skill of the photographer. In the wash-day scene, Figure 5, for instance, which includes in its construction pyramidal forms and several useful curves, neither of the women nor the child (nor for that matter the heap of clothes on the well-worn steps) necessitated any alteration whatever from the positions occupied when the subject was first seen from the yard entrance. Note how a sweeping curve usefully links up the heap of clothes with the basket, the woman's shoulder and the tops of the clothes props, at the base of which the graceful figure of the woman at the wash-tub is an invisible "line of beauty." The clothes props, too, direct just sufficient attention to the upper portion of the picture and help in the formation of a pattern binding together the separate items.

A companion subject, Figure 6, taken in the vicinity of the wash-day scene, is not so successful for the obvious reason that the heads of the little boy and the aged fish-wife make, with the top of the bunched net hanging from a hook on the wall a straight line. Here is stiffness and angularity which should have been parried. Try to imagine the change in effect had the little fellow been standing instead of sitting in the doorway; interested, as now, in the work going forward. At once the pattern would be greatly



Figure 7



Figure 8



Figure 9

improved because, in addition to breaking this straight line it would eliminate from one's mind the feeling now prevailing that he occupies the lower point of a triangle which includes as one of its sides, the figure of the fisherman.

In landscapes, seascapes, harbor and other scenes, it is just as necessary to take care lest one should have directional lines, which, however charming the subject, make unsatisfactory patterns. Compare, for example, the three shipping subjects, Figures 7, 8 and 9. How disappointing is the first named in both line direction and distribution of masses of tone (the diminuation in vigor of presentation as the horizon is approached emphasizes the triangularity of pattern) in comparison with its companions, where in both these blemishes are largely rectified by the introduction of the fishing vessels on the right. In addition, the fortuitous opportunity to secure the sailor in his rowing boat makes Figure 9 the better of these two. For, as will be evident, this incident, small though it is in area, animates the scene, connects the near with the distant parts, draws the subject matter together and detains attention precisely where desired.

This rule in picture making that principal lines or contours should tend to converge towards the center of interest within the picture space and not diverge in the direction of the margins or corners cannot be too strongly emphasized. The importance of the maxim is made evident by a comparison of Figures 10 and 11. In Figure 10 the contours of the two hedges, by roughly conforming to the shape of an inverted triangle, lead the eye to the upper corners of the picture space. Figure 11 is much better. Here, the chief landscape item, the slender tree rising gracefully from the hedge in the foreground directs attention to the distant castle by its friendly inclination towards it. Instead of dispersal of interest by line direction as in Figure 10, we have in Figure 11 a happy co-ordination of landscape and architectural subject matter resulting from employment of the elegant branches of a tree which is little more than a sapling.

A final illustration, Figure 12, forcibly demonstrates how essential it is to be ever on the alert to avoid anything that has a tendency to isolate interesting, sometimes even chief portions of a subject. In this instance the shadowed hedge, by running right across the picture space is primarily responsible for dividing the view into four compartments, each separate and distinct from the other. The weakest parts are the isolated upper left and right corners, especially the latter, a parallelogram with the principal feature of the castle (the Keep) as its center. Not less disappointing is the way the second tower is made to hold itself aloof from everything else, imprisoned, as it were, between two trees. Fortunately the shadows on the lawn give great charm to the foreground and even mitigate to some extent its segregation from the rest of the scene.

Experienced pictorialists regard an understanding of the significance of lines as most important. Such knowledge once acquired, can be employed almost subconsciously, in the arrangement of subject matter. For example, vertical lines are said to symbolize force, activity, initiative; their opposites, horizontal lines by the same reasoning, to typify rest, inertia. These and other basic principles are found in the realm of Nature. Growing trees, for instance, are upright; when decayed and no longer able to battle with the

Figure 10



Figure 11



Figure 12



elements, they fall to the earth from whence they sprang. Similarly, in hours of physical activity man is upright; when he finds it necessary to rest he reclines.

Where there is appreciation and regard for such ideas picture-making becomes much less difficult. Suppose, to take one instance only, there is a desire to portray "Eventide" as a subject. It will probably be almost instinctive to include water and the declining sun. To attain the "calm of evening" spirit in such an effort, a horizontal arrangement would no doubt be the choice of the experienced in preference to an upright print. Then as regards emphasis. If, as we have frequently been reminded by sympathetic art critics this desirable quality is gained by repetition, it follows the eventide pictures will be more convincing where cloud forms are more or less parallel with the horizon than those in which the horizon is seen below a cloudless sky.

It does not require a specially artistic nature, nor an undue amount of imagination, to appreciate the simple statement that if an upright line suggests strength and vigor, a curved line surely intimates elegance and graceful movement. Nor that as angles are held to represent rough force, circles, which may be regarded as forms without beginning or end, symbolize completeness; the harmony of contending forces. Triangles and pyramidal forms are everywhere accepted as suggestive of stability.

It is the appropriate application when acquired, of such knowledge that makes a great deal of difference in picture making progress; initiative to know how to proceed when a subject pleases is of inestimable advantage to successful rendering.

Direct Processes For Making Photographic Prints In Color

Communication No. 832 From
the Kodak Research Laboratories
C. E. K. Mees

DURING the last few years, the public has shown a greatly increased interest in color photography. A few years ago, the introduction of a direct method of making color transparencies made the practice of color photography very much easier than it had been, and at the present time a very large number of photographs are taken in color. Approximately three-quarters of the home motion pictures are made in color, and more

than twenty million still pictures are being taken in color this year. I think that if I were to ask the average man in the street, however: "What is the status of color photography?", he would say: "Oh, you can make photographs in color, but we have not yet got real color photography." And if I cross-examined him as to his meaning, I should find that what he was thinking about was the production of prints in color; that he felt that to achieve real "color photography," it should be possible to load a camera with a film and then, after the film was developed, to obtain from it a color print, just as a black-and-white print is obtained from an ordinary film exposure.

Color prints are being made, but by processes which involve a great deal of expense and difficulty, and so the objective of real color photography—to make prints in natural colors from a color transparency by some simple, direct process—has remained unattained. Within the past year, however, it has been achieved not by one method but by two different methods. An account of these new processes is given in this paper.

Processes of color photography involve invariably the preparation of three pictures, each taken by one of the primary colors—red, green, and blue-violet—and then their recombination to form the final color picture. To produce color prints, the pictures are combined in the form of dye images, each of the images being formed of a dye having a color complementary to that by which the picture was taken. The picture taken by red light is printed in a cyan (blue-green) dye, the picture taken by green light is printed in a magenta dye, and the picture taken by blue is printed in a yellow dye. The three separate pictures may be taken successively through suitable filters or simultaneously in a somewhat complicated *one-shot* camera, in which a system of reflectors splits the light from the lens to form three images, or by means of a *tripack*.

The early development of tripacks is dealt with in Chapter IV of E. J. Wall's "History of Three-Color Photography."^{*} He ascribes the first suggestion to Ducos du Hauron, from whom came suggestions for almost all the systems of color photography which have been developed. In 1897, du Hauron described an "Apparatus with a single dark slide and with a single objective procuring the simultaneous obtainment of the three phototypes; in other words, dialytic selection of the light rays by an alternation of color filters and plates or sensitive films, formed like the leaves of a book or polyfolium, placed in the dark slide." In this system a pack of three films and a yellow filter are used. The objection to these tripacks is poor definition. The light passing through the front film becomes diffused, and since this is necessarily separated from the green- and red-sensitive layers by the thickness of the film base, it is difficult to get really sharp pictures. To get the real advantage of a tripack, it is necessary for the three sensitive layers to be almost in contact; that is, the three layers should be coated one over the other so that the distance between the blue and red layers is a small fraction of one-thousandth of an inch. Tripacks of this type were suggested in the early literature of color photography with the idea that they should be separated into the three layers for development

^{*} Published by the American Photographic Publishing Company, Boston, Massachusetts.

and printing, but the manipulation of such systems proved in practice to be very difficult, and they had no success.

It was also suggested, however, that it might be possible to develop such tripacks and then by some chemical treatment to convert the silver images into dye images. There are a number of proposals of this type in the early literature; one of the earliest which appeared possible of realization was that made by Rudolph Fischer in 1912. Fischer proposed that a tripack should be made by coating three emulsions on the top of one another, the lowest one being sensitive to red light, the middle one sensitive to green light, and the top one sensitive to blue light, and that in these three layers there should be incorporated chemical substances which in the process of development would produce dyes. The method which Fischer proposed to use for producing dyes was one which had been discovered by Homolka and worked out by Fischer himself—the process which we now know as *coupler development*.

This depends upon the fact that when a developer reacts with silver bromide and forms silver, its oxidation product as it is formed reacts with other chemical substances in the solution and forms colored compounds; that is, dyes. This is true only of certain developing agents, particularly those known as *diamines*. When the diamines develop silver bromide, their oxidation products formed at the same time combine with many types of chemicals which are known as *couplers* and give rise to strongly colored dyes which are deposited in the film with the silver formed by the development of the image.

The details of the mechanism of dye formation have not been completely established, but it is believed that the first reaction occurs between the developer and exposed silver halide to produce silver. In this reaction, the developer is oxidized to an extremely reactive intermediate product, which immediately reacts with the coupler. This second reaction probably forms the leuco dye, from which the dye itself is generated in a subsequent oxidation step. The choice of developing agents for color-forming development is very limited. All of the known types of organic developers have been investigated, and, of these, only certain p-phenylenediamine derivatives have been found useful. These consist of p-phenylenediamines bearing two substituents on one of the nitrogen atoms. Other substituent groups may be introduced into the benzene nucleus to modify the properties of the developer itself or of the dyes derived from it.

The couplers are distinguished chemically by their possession of a reactive group, usually methylene. The cyan couplers are usually phenols; thus, a typical compound would be a chlorinated naphthol. Magenta couplers are often nitriles or pyrazolones, and the yellow couplers are typically esters, ketones, or amides. The couplers may be added to the developing solution, in which case they must be of relatively low molecular weight and be soluble in the alkaline solution, or they may be incorporated in the emulsion layer. In the Fischer process, the couplers were incorporated in the layers, each coupler in its appropriate layer, so that during development three different dyes would be produced simultaneously—a cyan dye in the red-sensitized layer; a magenta dye in the green-sensitized layer; and a yellow dye in the layer sensitive to blue and violet. In this process, it

was necessary that the sensitizers should not wander from one layer to another and also that the couplers should remain in the layer in which they had been placed. In the existing state of knowledge, Fischer and his collaborators were unable to accomplish this and so were unable to realize his very ingenious process.

The first workers to succeed in producing direct color photographs by a tripack which reached the commercial market were Mannes and Godowsky, to whom the Institute awarded its Edward Longstretch medal in 1940. They adopted coupler development, but instead of putting the coupler into the emulsion, they introduced the dyes into the appropriate layers during the processing, the original tripack consisting of the sensitized emulsion layers only. This process was worked out by Mannes and Godowsky in association with the Eastman Kodak Company, and in 1935 it was placed on the market under the name of *Kodachrome*. It was introduced first for 16-mm. film for the amateur cinematographer. Since then, its use has been extended to cover the low cost 8-mm. motion-picture film, the 35-mm. still film for miniature cameras, and cut-sheet film of large size for use by the professional and commercial photographers.

To produce the three color images in Kodachrome, it was necessary to find a method of introducing each dye image into its own layer. The image in the bottom layer, sensitive to red, must be formed of the blue-green dye; the middlelayer, of the magenta dye; and the top layer, of the yellow dye. In their original Kodachrome process, Mannes and Godowsky took advantage of the position of the layers. The process uses a film in which there are five coatings: Nearest the base is coated the red-sensitive layer and over this an interlayer of gelatin. Above this is coated a green-sensitive emulsion, which is overcoated with an interlayer of yellow dye to act as a filter. Finally, there is a blue-sensitive emulsion at the top. All of the five coatings are very thin, and the total thickness of the emulsion is little more than that used in ordinary film. To transform the three images into the dye positives, the film was first developed to a negative and the negative silver images removed by bleaching with permanganate. The film was then exposed to light to make the positive silver bromide images developable, and the whole film was developed to produce a blue dye in all three layers. Then the film was dried and, in a second machine, was treated with a bleach of low penetration, the action of which was limited to the two top layers, from which the dye was removed and the silver bromide regenerated and developed to a magenta color. The film was dried again, and a bleach of very feeble penetration removed the dye from the top layer and turned the silver in that layer back to silver bromide, so that it might be developed to the yellow dye. This process was slow and very clumsy because of the three separate treatments required, but it was, nevertheless, successful and was operated for some years.

A new process was then worked out in which the assigning of the dyes to their correct layers depends not upon their position in the depth of the film but upon the sensitivity of the three emulsions. It was necessary, of course, that the sensitizers should survive the early stages of processing, and since no sensitizer would withstand the action of acid permanganate, it was necessary to use a different reversal process.

In this process, the exposed film is put through an ordinary developer to produce a silver image. Then the film is exposed through the base to red light, which makes developable the unexposed silver bromide in the bottom layer, and this is developed with a cyan coupler, so that in the bottom layer a positive image in cyan dye is associated with the development of the whole of the silver bromide originally present in the layer. Next, the top side of the film is exposed to blue light and is passed into a developer containing a yellow-forming coupler. Then all the silver bromide is exhausted except that corresponding to the positive image of the middle layer, which is then developed with a coupler forming a magenta dye. There are then in the film three positive images in the appropriate colors and the whole of the silver bromide converted into silver by the two development operations which each layer has undergone. The silver is removed from all three layers, and the film is fixed, washed, and dried. This process offered very considerable difficulties when it was first attempted but, in view of its advantages, they were overcome, and it is the method by which the Kodachrome film is now processed.

A great many improvements have been introduced into the original Kodachrome film by changes in the sensitizers, in the couplers, and in the dyes that they produce. The original Kodachrome couplers formed dyes which on long keeping tended to fade, especially at temperatures above normal. This trouble has been largely eliminated, and unless the present Kodachrome images are exposed to conditions of elevated heat and moisture, they are unlikely to show any appreciable fading over a reasonably long period. The quality of the images has also been improved by steady adjustments of the many points involved until, at the present time, the Kodachrome process may be regarded as a very excellent and reproducible system for obtaining color transparencies.

It is obvious that the Kodachrome process could be used to obtain color prints. If a Kodachrome transparency is laid down on white paper support, it will appear much too dark to make a good print, but a transparency too light and transparent to be satisfactory for viewing by transmitted light can be cemented to a white paper support and the film base removed by solvents, which leaves the color image on the paper. It is also obvious that it should be possible to coat the three sensitive layers on an opaque base, such as paper, and to process them by the Kodachrome process to get a color print, but this is a far more formidable task than would appear. The mere duplicating of a Kodachrome is not very easy. It is difficult to avoid a loss of color saturation and a shift in color. Moreover, the thin coatings on paper give new troubles of their own, and the paper base itself introduces very considerable difficulties. These can be overcome by using a white opaque film base instead of paper.

As a result of a good deal of work, the Eastman Kodak Company was able to announce at the end of August last that they were prepared to make color prints from Kodachrome transparencies. Three kinds of prints were made available in this program at the beginning of September.

Those known as *Minicolor* prints are made from the small Kodachrome transparencies on 35-mm. film which have been so very successful in the hands of the general public. The transparencies are enlarged two diameters

to make an inexpensive print or five diameters to make an enlargement which can be placed in a standard photographic mount. Thousands of these 2X and 5X color prints are being made every week. At the same time, commercial prints from larger Kodachrome originals are made by a more complicated process, in which an improved color correction is obtained by the introduction of masks over the original. These masks are black-and-white negatives printed on panchromatic film from the original color transparency. The mask is fastened to the original in accurate register, and, being a negative, it lowers the over-all contrast of the picture. In addition, the color of the light by which the mask is printed is chosen so that the greens and blues, which tend to become too dark in the print, are lightened. In this way, a print can be made which will reproduce the original much more closely than if no mask were used. These *Kotavachrome* pictures, as they are called, can be made of very large size. Thus, one of the methods for making satisfactory direct color prints utilizes the Kodachrome process.

Some time after the first Kodachrome film was introduced on the market, the Agfa Company in Germany placed on the market a film in which they had realized the original Fischer process. They had available sensitizers and couplers which would not wander from one layer to another and were thus able to put out a film which they processed by a reversal process.

Some years ago, the Kodak Laboratories worked out a modification of the Fischer process in which the couplers in their emulsion layers were not dissolved in the gelatin layer itself but were carried in very small particles of organic materials which would protect them from the gelatin and, at the same time, protect the silver bromide from any interaction with the couplers. When development takes place, the oxidation product of the developing agent dissolves in the organic material and there reacts with the couplers, so that the dyes are formed in the small particles dispersed through the layers. This process might be known technically as the *protected coupler* process. Its success depends upon the choice of suitable materials for protecting the couplers and, of course, upon the choice of suitable coupling compounds for the dyes. Within the last year this process has been reduced to a production basis, and early in 1942 a new film will be introduced suitable for use in roll-film cameras except those which are already supplied with the 35-mm. Kodachrome film. The film will be developed as a complementary negative from which prints on paper can be made by the same process. This process has been named *Kodacolor*, a name which was used some years ago for the additive process of color photography by which the first amateur color motion pictures were made. This process is now obsolete, as it was withdrawn when Kodachrome was introduced.

This new Kodacolor process, then, differs very markedly from Kodachrome although it is essentially of the same character. The film is coated with the light-sensitive layers: the red-sensitive layer nearest the base; then the green-sensitive layer; a filter layer; and the blue-sensitive layer. In each of the emulsion layers are suspended particles of organic compounds insoluble in water, particles so small that they can be seen only under a high power microscope and containing the couplers required to produce the dye appropriate to each layer when they react with the oxidized de-

veloper. After exposure, the film is processed with a developer of which the oxidation product reacts with the three couplers, each in its own layer, and thus a dye image is produced with the silver image in each layer. After the silver has been removed, a negative is obtained composed of dyes, in which the image is not only negative as regards light and shade but in which all the colors are complementary to those of the original subject. When such a negative is printed upon a paper coated with a similar set of emulsions containing protected couplers, a color print is obtained in which the colors of the original subject are reproduced.

The Eastman Kodak Company is undertaking to process and print the Kodacolor film. The purchaser of a roll of Kodacolor film can send it to a processing station through his dealer and order color prints from the negatives that will result from his exposures. The prints are made by projection and are of the same width regardless of the size of film used. They are made on a special projection printer adapted to enlarge the picture to a standard width and, at the same time, to maintain the proportions of the picture shape used. In this printing process it is not necessary to use waterproof base, and the prints are on paper. The printing is done on a continuous roll of paper, which is processed through a complicated machine, after which the prints are cut up and delivered.

The introduction of this new process, which makes it possible for the public to obtain color prints without any greater difficulty than attaches to the taking of photographs in black and white, and the development of the Kodachrome printing process, by means of which prints can be obtained from Kodachrome transparencies, mark an important turning-point in practical color photography. Just as the introduction of the Kodachrome process in 1935 enabled home motion pictures to be made in color, and in 1937 its application to 35-mm. still pictures made it possible for millions of color photographs to be made each year, so these new processes will enable color prints to be produced in rapidly increasing quantities.

It is not always recognized that the development of inventions to the practical stage often involves far more work than the original inventions which made the development possible. The methods used in the manufacture and processing of Kodachrome were invented long before the film itself could be placed in the hands of the user, and the application of the process to the production of prints required much further work before those prints could be made with sufficient ease and certainty. But, as each new step is taken, new possibilities come into sight and new progress can be made.

The growing popularity of color photography cannot fail to affect the engraving and printing arts. As more and better color photographs are taken, the demand for their reproduction will increase and the use of color in illustration is likely to increase to a very significant extent during the next few years.

Cinema Section

Edited by

William A. Palmer

Cinema Art, Olson And Johnson Style

IN contemplating the difference between amateur and professional movie production, one is impressed by the fact that the amateurs are not held back in any way by the technical limitations of their equipment or film. As we pointed out last month, 16 mm. cameras and Kodachrome film are capable of such superb results that Hollywood is turning to those tools for the production of some of their master films which are then "blown-up" to 35 mm. size to give theatrical color superior to anything available under the price range of the fabulously expensive Technicolor.

Obviously, amateurs are not being held back by their medium as far as visual qualities are concerned. They naturally cannot use sound as an integral part of their production, but movies are still primarily a visual medium and most picture subjects of interest to amateurs will not suffer for lack of dialogue. Music can be equally helpful to both amateur and professional production and here the amateur is not at a disadvantage. He has the entire list of the phonograph company libraries at his command.

The great difference between the amateur and the professional is that the latter, if successful, has the combination of ingenious ideas and plenty of money to exploit and stage them. The amateur definitely has a limit to his financial outlay but shouldn't necessarily be limited in ideas. As long as the amateur keeps his ideas within the bounds of reason, which automatically rules out fine acting talent since this is Hollywood's most expensive item, he should be able to produce film fare of quality depending solely on his ability and not limited by his equipment or film size.

In the documentary field the amateur has a definite advantage over the professional 35 mm. worker, since his equipment is so light and simple to

use, he can capture scenes on the fly while the professional must take hours to stage his "candid" shots. The documentary-making amateur has all the world acting for him and has only to be there at the right time to record the action.

But in most cases the amateur doesn't care how fine a piece of cinema art he is producing. He shoots movies for fun and if the technique isn't so good it matters little. As a matter of fact, an amateur may have complete disregard for the higher qualities of camera operation, exposure, and lighting and still come through with a film that is far more entertaining than one produced by an unimaginative technique-hound even though the camera work on the latter's opus is flawless.

Now comes a professional film which has as complete a disregard for the usual movie technique as any garden spraying amateur. The result is not only most entertaining, but suggests a number of ways in which an amateur could make his movies more palatable as an entertaining medium.

In "Hellzapoppin," Olson and Johnson trot out every old camera trick which has been laying around the studios since the days of Edison and hung them together with the utmost contempt for continuity. As the foreword states, "Any resemblance between this show and a motion picture is purely coincidental." Because the picture makes marvelous humor largely from camera tricks and because most of the tricks are easily within the capabilities of an amateur camera, we feel that it would be worth while to analyze some of them. They might come in very handy when one is in a silly cinematic mood. There are any number of variations or gags that can be worked around these tricks and if they are good enough for a first line theatrical movie, they ought to do for the home production.

The first example of the camera's magic occurs just before Olson and Johnson appear for the first time. A taxicab arrives, the door opens, and out come a phenomenal number of barnyard animals. This is a fine stunt for the amateur for it really requires no camera mechanics, but merely makes use of the valuable property of movie photography that what you don't see in the field doesn't matter. In this case a home movie variation might show a small coupe driving up to a house, the door opens and ten or twelve guests step out. The execution of the effect would be simple. One long shot is made of the car driving up and stopping, preferably taken head on, then cut to a closer shot also head on but not showing one side of the car. Your almost never ending stream of guests can enter the car off screen and pile out of the open door. The camera angle should be so chosen that one cannot see into the car through the windshield and for this purpose a convenient glass reflection will be a help. For those who own a camera equipped with a wind back and mask slot like the Cine Special, the trick can be more mystifying if the second shot is made by double exposure and a "split screen." This entails shooting the scene further back so that both sides of the car are in the finder. Use a vertical mask dividing the screen in half and shoot the door opening and many persons emerging. The other side of the car where the people enter will of course be masked off. Then rewind the film, change the mask to its complement and shoot the scene of the other half of the car with no one around. Another version of this gag occurs later in Hellzapoppin when Olson is shown at the head end of

a long ladder which he carries across the screen. He moves out and the ladder continues across until the tail end arrives and the guy carrying that end is Olson! This of course is just a movie version of that old panoramic still photo trick of running around the back of a group while the camera is shooting the center so that the same person appears on both ends of the group.

Reverse motion, so conveniently done by the amateur by merely holding the camera upside down, is used on two occasions in the Olson and Johnson opus. In one case it is the good old standby of a reverse dive out of the water onto the springboard, in another case the materializing of an exploded automobile. This last suggests another old comedy gag that the amateur can pull, that of the terrific explosion which, as the smoke clears, discloses a ludicrous change such as the complete blackening of a person's face or the tearing of his clothes to shreds. The way to work this effect is to plant some flash powder in the scene with an electric firing device. The flash powder must be placed in the proper container so as not to do actual damage. The scene is then photographed until the powder goes off. At this point there will be one frame which will become completely fogged by the blinding flash. In the editing process another scene is cut in which starts with a great deal of smoke which gradually clears away to show the results of the explosion. The two scenes are taken at completely different times, but when cut together they give the effect of continuity. A large amount of smoke for the start of the second scene can be obtained from a smoke pot which can be obtained from a fireworks manufacturer or if those are not available, a bee keeper's smudge should do the job.

Hellzapoppin has many "running gags," a device that is always good for amateur films. This consists of some action that is repeated at intervals throughout the film. The man with the potted plant for Mrs. Jones and the woman looking for Oscar are good examples. A swell running gag for an amateur ski film is to show a person struggling to his feet only to flop. If this is repeated at judicious intervals it can become very hilarious.

One stunt pulled by Olson and Johnson doesn't have quite as much dust of the ages on it, but is very feasible for amateur use. It is a series of "walk through" scenes in which the two move from set to set with a running conversation. Each set is a different location and the actors are immediately shown with the appropriate costume for the location. A variation of this would be to show a person out for a walk with a dog. A series of shots could be made supposedly in direct continuity, but each scene would show a different kind of dog on the leash.

Another stunt which could be easily used is a dolly shot which follows Olson and Johnson as they walk around a swimming pool. As they pass the springboard, a beautiful girl is seen getting ready to dive, whereupon the camera stops following the actors and dwells on the girl. Olson and Johnson walk right out of the frame and then duck back in to motion for the camera to follow them. The camera does start to follow again, but then moves back to take another look at the girl.

Stop frame animation is used in several cases to show extremely accelerated action. This is shown particularly well in a scene in which a cake of ice is held between Mischa Auer and Martha Raye as they go into a

clinch. In the apparent space of a few seconds, the ice is completely melted. This can be done by almost any amateur camera even though it is not equipped with a single frame release. A quick tap on the starting button will expose a single frame and if an action like the melting of a cake of ice normally requires three hours to melt, a frame taken every two minutes would show the ice melting on the screen in about six seconds.

One very amusing sequence shows a mix-up when the projectionist gets the wrong reel in number two projector. Olson and Johnson suddenly find themselves in the midst of an Indian fight from a western picture. This suggests endless possibilities for cutting pieces from library subjects into home movies. One such plan would be to show close-ups of a famous personage in close-up intercut with a similar shot of a member of the family apparently in conversation with the celebrity. There are enough subjects available at prices less than raw film that one wouldn't feel badly about cutting up a subject just to get a few scenes.

There are a number of gags which involve byplay between Olson and Johnson on the screen and the projectionist. This involves a picture within a picture which is a pretty stiff problem for the amateur but by no means impossible. An effect of a projected picture can be obtained by double exposure first of the "picture" area which must be masked off either by a special rectangular matte in a mask slot or in a matte placed in front of the camera in a matte box. The film is later rewound and exposed to show an audience in the foreground. No masking is necessary for the second exposure if the audience is placed against a black background or illuminated so the background is so dark as not to appear over the "projected picture."

One episode of Hellzapoppin is a natural for owners of the Cine Special. This is a sequence in which Olson and Johnson try to make themselves invisible in the "Topper" style. They only succeed in getting half zipped to transparency, one losing his upper part, the other losing his lower. Actually the effect as done in the picture involved some fancy optical printing work, but an effect almost identical can be made with the aid of the horizontal dividing mattes in the Cine Special. If it is desired that the upper half of a person disappear, the scene is shot with the upper half masked off, the film rewound, the masks changed, and the same scene shot with no one in view.

Another similar effect using vertical masks shows Hugh Herbert hiding behind a very slim tree. He peeks out one side of the tree with a disguise, ducks back and immediately appears on the other side with another disguise. This is a simple double exposure with a split screen matte cutting down the center of the tree. The only complication in such a shot is the careful timing necessary between the two exposures.

All in all, Hellzapoppin is a fine catalogue of film foolishness with camera tricks, and is well worth a study by cine enthusiasts. But you better plan to see it twice because the gags come too fast sometimes.

We say goodbye - - -

THE time has come for *Camera Craft* to bid farewell to its readers, and to wish them success and happiness in all of their undertakings, photographic and otherwise.

Beginning with the April issue, *Camera Craft* will be merged with AMERICAN PHOTOGRAPHY. This step has been decided upon because of the exigencies of the times and because the editor of *Camera Craft* is taking a place in the armed services.

In referring its readers to AMERICAN PHOTOGRAPHY, *Camera Craft* has every confidence that it is placing their interests in most worthy and capable hands. The editorial policies of both magazines have consistently tended in the same direction. Both have been primarily concerned with the interest of the serious amateur photographer, and have presented a close harmony of technical and pictorial instruction for such a reader.

AMERICAN PHOTOGRAPHY, with its new format and expanded staff of editors and contributors, is doing a fine job, and is performing a most vital task. In the days to come the cause of finer photography will have need of a champion, eloquent and courageous. We have every confidence that the editorial staff of AMERICAN PHOTOGRAPHY will meet that test.

As the subscription price of the two magazines is the same, subscribers to *Camera Craft* will receive the same number of issues of AMERICAN PHOTOGRAPHY as they would have been entitled to from *Camera Craft*, and if there is a duplication of subscriptions, the subscription will be extended for the proper number of months.

The Camera Craft Publishing Company will remain in business at the same address, 425 Bush St., San Francisco, as a publisher and distributor of photographic books. *Camera Craft* feels that it has performed a real and valuable service in bringing to photographic literature such outstanding publications as the various works of William Mortensen; "Make Your Pictures Sing," by Paul L. Hexter; "What You Want To Know About Developers," by Edmund W. Lowe, and numerous others. We will continue to render all of the book services which we have carried on in the past and hope for the continued support of the discriminating reader.



"Nebraska"

Axel Bahnsen, Yellow Springs, Ohio

First Award—Advanced Class

♦ If one can learn to find interesting form in simple things; learn to sense through a sort of emotional receptiveness the emotional quality most appropriate to the subject; and finally learn to bring one's imagination into play in order to present the subject dramatically and with the emotional content clearly revealed, he has unquestionably become an artist. This statement might also be considered as a reasonably accurate description of the creative process. Admittedly the statement is in broad general terms, and it is very important to understand that it cannot be otherwise. No matter how detailed a description might be attempted it cannot be in absolute, concrete terms, for we are dealing with a function which is intensely personal; a function which is almost the exact reverse of a scientific process. It is therefore heart-breaking indeed to witness the average amateur's persistent hunt for rules, laws or formulas which pretend to govern the creative process. For such an amateur is looking for something which doesn't exist, and worse still, is deliberately though unwittingly, turning his back on the one direction in which true understanding lies.

There are no rules or formulas which can give you the insight and imagination by means of which Mr. Bahnsen created this picture, and the same is true of every other fine picture which has ever been made. If this writer were asked to briefly describe the path to artistic success in photography he would say this: Stop looking for formulas and secrets; resolve to cultivate your personal sensitivity toward emotional values and the subtleties of graphic representation; resolve to develop the faculty of mentally translating your subject into a finished photographic print; and finally, resolve to learn to use your imagination.

Data: 16x20" print.

Second Award

Advanced Class

♦ This picture is technically about as fine as it could possibly be and it shows an interesting subject in a natural and convincing fashion. The problem of placing the head in the picture space is most interesting here. On a theoretical basis things are quite correct as they are. The eyes are well above the center, there is ample space on the right and the space above the head would theoretically be justified by the upward direction of the eyes. In spite of all that we cannot escape the feeling that there is too much space at the top, if the most pleasing spacing is to be obtained. The answer appears to be that the vertical lines in the background have the effect of exaggerating the space above the head. Here again we find evidence that the finer adjustments of composition must be *felt*. They cannot be decided by rule. We like the picture better trimmed from the top until the top of the print cuts into the peak of the hat.

Data: 16x20" print.



"Hansen"

W. Ellis Teas
Pasadena, Calif.

Third Award

Advanced Class

♦ This picture shows a most attractive little lady in a delightfully characteristic attitude. It seems to catch the spirit of childish fun-making most successfully. Technically the print is fine. Our one disappointment concerns the slight crowding of the head in the picture space. This would not be noticeable with a less active pose, but as things are we would like to see a little more space on both sides and at the top. It is quite plain that this has not been done because it would introduce complications toward the base of the print. There would be a "gutter" in both lower corners and such a condition would be at least as bad if not worse than the present slight crowding. The lesson is one which can be widely applied. Whenever possible it is advisable to work for a pose which will achieve as broad a base as possible. This usually means carrying one or both of the arms somewhat outward from the body. If that had been done, admittedly difficult under the semi-candid conditions, there would have been no trouble in allowing more space about the head.

Data: Maximar B; 1/50 sec. at F:16, on Kodak Super XX; 9½x13" print.

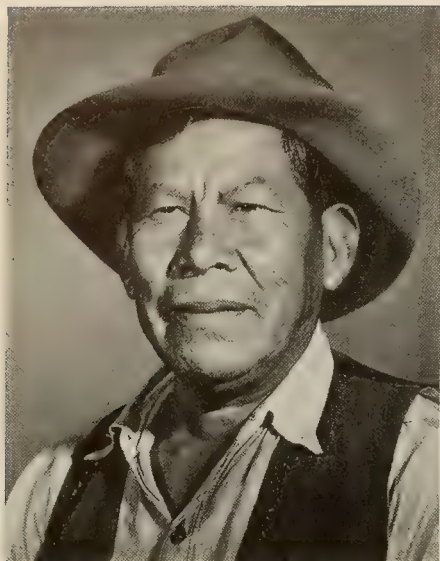


"Glee"

Anne Pilger Dewey
Chicago, Ill.

Fourth Award

Advanced Class



"Un Hombre de Sonora" M. M. Deaderick
Santa Barbara, Calif.

♦ The principal virtue of this picture is its straightforward matter-of-factness. We feel instinctively that here is an absolutely honest representation of the subject, something which we need not hesitate to accept at its face value. This quality is most important to all pictures except those which deliberately turn toward fantasy or themes of like nature. It is particularly important to a photograph, for realism is one of photography's strong points. The continued reiteration of the obvious fact that we must have something more than an accurate record to make a picture, tends to obscure the necessity for honesty and sincerity. Thus we find many photographs which fail to completely satisfy because of a faintly sensed element of protense underlying the emotional quality which the picture presents. Such an unfortunate condition may be due to a lack of complete control over the model. More often such failures are the result of an attempt to portray a characteristic which is not true to the subject. The classical and extreme example shows sister Sally, age 14,

vastly overburdened with lipstick and mascara. The title, "Salome," "Siren," "Sinister" or what have you. The procedure in such case is to select a theme, and to then attempt to suggest it with whatever subject matter is at hand. This is exactly what should not be done. The theme must come from the subject and must be truly characteristic of the subject. The artist's function is to see and feel what is there, not to arbitrarily impose a pre-conceived theme upon his material.

Data: 4x5" Crown View camera; 14" Zeiss Protar; $\frac{1}{2}$ sec. at F:12.5, on Kodak Super Panchro Press in Pyro; by one 500 watt Spot and two floods, diffused. 16x20" print on Kodak Opal P, in D-72.

Fifth Award

Advanced Class



"Last of the Leaves" C. K. Wu
Hon Kong, China

♦ This picture is appealing, partly because of a nice distribution of masses, but more particularly because of the very lovely tonal harmony shown in a short scale of values. The cloud reflection in the water is very helpful in bringing life and variety to what would otherwise be a monotonous, dead background. As we have said, the distribution of the masses is well planned, but we feel that the composition would be strong in design if there were a more clear cut area of emphasis. As things are the three most centrally placed pads are almost equally interesting. Actually they function together with the highlight between them as a rather extensive area of principal interest. We would like to see one of the lily pads take more definite precedence over the others so that the thing would come up more strongly as a design.

Data: Soho Reflex; $\frac{1}{300}$ th sec. at F:16, on Kodak Super XX cut film, with green filter. 11x14" print on Kodak Kodabromide G-3, in D-73.



"Just One More Minute"

Arlene Ragsdale, Los Angeles, Calif.

First Award—Amateur Class

♦ Here is an unusually well executed picture on a favorite photographic theme. Observe how nicely the camera and figure are organized into a unified mass. Often these two principal elements are too separate in such a picture. This approach moves toward simplification which is always desirable. The hands are excellently posed and most expressive, while the expression is quite amusing, and though rather extreme does not appear to be carried to the point where it seems definitely overdone. The tip of the model's right ear which is seen on the contour of the cheek is a distraction which should be removed. It is certainly difficult to see small distracting items such as this at the time of shooting. Much practice, consistently followed by a careful study of errors is the only way to develop a trained eye.

Data: 4x5" View; Dagor lens; open and shut flash with two No. 5 flash bulbs; F:22, on Kodak Super Panchro Press.

Second Award

Amateur Class



"West Beach"

*Dr. T. H. Cheavens
Dallas, Texas*

This should bring about a clear realization of the opportunities which the material affords and recognition of the artistic and technical problems which it presents. This is only the first step, but its importance can not be exaggerated.

Data: $2\frac{1}{4} \times 3\frac{1}{4}$ " Graflex; 1/100th sec. at F:45, on Kodak Super XX; 13x16" print.



"Jump Turn"

*Marjorie Duryee
Everett, Wash.*

Third Award

Amateur Class

✦ Here, we find very thrilling action, caught at just the right moment, and made doubly exciting by the beautiful spray of powdered snow. All such pictures involve the persistent problem of just how completely the action should be stopped by fast shutter action. Some slight blurring of detail is usually desirable in order to avoid a "frozen" effect which tends to decrease the feeling of fast action in a picture. As a general rule, action should be stopped in all except the most rapidly moving parts. The nature of the subject matter, however, has an important bearing on the problem. When the action is plainly of the most rapid and violent nature, as is the case here, there is much less necessity to suggest action through permitting a blurring of detail. Where the action is less obvious, as in flowing water, for example, the "frozen" effect is more likely to appear to the detriment of the picture. In subjects such as this we feel that action should be almost completely stopped, so that as much detail can be rendered as is possible. The present picture would be better if a faster shutter speed could have been used.

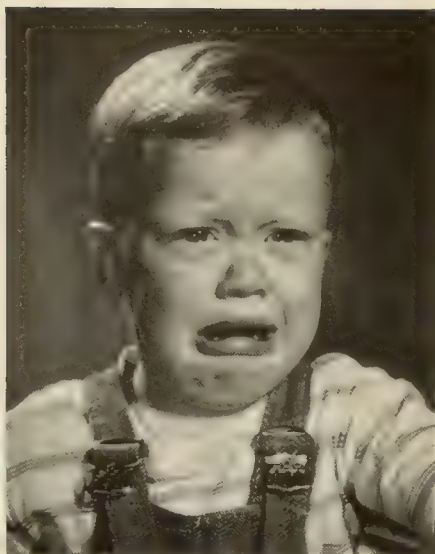
Data: Leica G; 50 mm. Summar; 1/500 sec. at F:4.5, on Kodak Panatomic X, in Defender 777; light yellow filter; 9x13" print on Defender Velour Black JS-2, in 55-D.

Fourth Award

Amateur Class

♦ Here is a picture which tugs at the heart strings and when that is the case the battle is more than half won. Execution is generally good, although there is an unnecessary complication of shadow and highlight on the ear which makes it a bit prominent. The tip of the ear on the right of the print should not show for small protuberances such as this interfere with the flow of contours and call attention to themselves.

Data: $2\frac{1}{4} \times 2\frac{1}{4}$ " Rolleiflex; 1/100th sec., at F:3.5, on Kodak Super XX in Dr. Chas. developer; by two No. 1 photofloods and one 400 W Spotlight; 11x14" print on Defender Veltura, in 55-D.



"Tears"

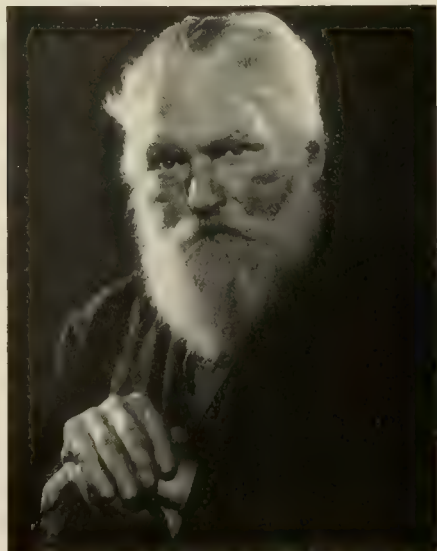
*C. N. Tigrett
Memphis, Tenn.*

Fifth Award

Amateur Class

♦ This exceptionally interesting portrait subject has been handled with understanding and restraint, except for a certain excessive brilliance which appears to be the result of both lighting and printing, although we believe it can be largely corrected by adjustments in printing. As things are the pronounced brilliance of the print gives it a slight touch of theatricality which is not desirable and this feeling is made more evident by the strong blast of light which hits the left side of the model's head. Softer printing which would lower the tone of the highlights but keep the shadows substantially as they are now would probably eliminate almost all of this effect. However, it would have been best to have had the light which strikes the left side of the head considerably weaker, so that the appearance of cross-lighting would not be evident.

Data: $3\frac{1}{4} \times 4\frac{1}{4}$ " Graflex Series B; $6\frac{3}{8}$ " Bausch & Lomb Tessar; Defender X F Pan, in Kodak D-76; 8x10" on Defender Velour Black S-2, in 55-D.



"Wandering Character"

*F. D. Baldinger
Palo Alto, Calif.*

What is Kodacolor?

Kodacolor is a new color process. It starts with a new film—Kodacolor Film—available in rolls for roll film cameras in popular sizes. After exposure and development, full-color prints on paper are made by Kodak in Rochester.

How is Kodacolor Film used?

Kodacolor Film is loaded, exposed, removed from camera exactly like black-and-white film. No filters, extras required.

In what sizes is Kodacolor Film available?

127 120 620 116 616 122

What are the retail prices?

\$1.25 \$1.50 \$1.50 \$1.75 \$1.75 \$2.40
—for six-exposure rolls in the above sizes—including processing, of the film only, by Kodak.

In what cameras can it be used?

In almost any camera loading with one of the above sizes, regardless of lens and shutter equipment. Even a Brownie will make satisfactory Kodacolor pictures in bright summer sunlight—where, of course, colors are brightest and the best color pictures are made.

The film is numbered for six exposures, with supplementary numbering for use in Brownie Reflex and many other split-frame cameras.

What is the basic exposure for Kodacolor Film?

For average subjects in sunlight, the basic exposure is 1/50 at $f/8$ to $f/11$. Complete exposure information packed with each roll of Kodacolor Film.

How is Kodacolor Film developed?

After exposure, user removes roll from camera, replaces it in carton, and returns it to his dealer, who ships it to Kodak for processing and printing. Cost of processing of the film (but not printing) is included in original cost of the film.

What do the processed Kodacolor Films look like?

Processed Kodacolor Films are color negatives—not color photographs. Like black-and-white photography, Kodacolor is a negative-positive process. Exposed film is developed to a negative—light areas of subject appear dark in negative, and vice versa. In addition, the colors themselves are the reverse of those in the subject.

Kodacolor negatives are intended to be printed only by the Kodacolor process. They then yield color prints corre-

sponding to colors of subject.

What are Kodacolor Prints?

Kodacolor Prints are full-color positive prints on paper . . . made from the processed Kodacolor Film negatives by Kodak.

In what sizes are these prints available?

All Kodacolor Prints are made

to the same fixed width of $2\frac{3}{8}$ inches . . . the length is dependent upon the proportions of the picture size of the film. A 620 Kodacolor negative, with picture size of $2\frac{1}{4} \times 3\frac{1}{4}$ inches, produces prints of the size illustrated on the back cover of this magazine—approximately $2\frac{3}{8} \times 4\frac{3}{8}$ inches, not including the white margins.

THE FULL-COLOR SNAPSHOT HAS ARRIVED

(See back cover)



FULL-COLOR snapshots are here . . . thanks to Eastman's remarkable new Kodacolor process.

You take them just like black-and-white snapshots. You use any ordinary roll film camera—even a Brownie or other camera with small-aperture lens, in bright summer sunlight.

Here, in question-and-answer form, is the Kodacolor story . . . perhaps the most interesting story Kodak has ever told. . . . Eastman Kodak Company, Rochester, N. Y.

Here is a table of print sizes from various negatives—exclusive of $\frac{1}{8}$ -inch margins. In all cases the longer dimension is approximate, because of slight variations in negative sizes obtained with various cameras.

7	27 $\frac{1}{8}$ x4 $\frac{1}{4}$	122	27 $\frac{1}{8}$ x5 $\frac{1}{8}$
10	27 $\frac{1}{8}$ x4 $\frac{3}{16}$	15 $\frac{1}{8}$ x1 $\frac{1}{8}$	27 $\frac{1}{8}$ x2 $\frac{3}{8}$
11	27 $\frac{1}{8}$ x4 $\frac{1}{16}$	21 $\frac{1}{4}$ x2 $\frac{1}{4}$	27 $\frac{1}{8}$ x2 $\frac{3}{8}$
20	27 $\frac{1}{8}$ x5	Half 127	27 $\frac{1}{8}$ x3 $\frac{1}{8}$
30	27 $\frac{1}{8}$ x5	Half 620	27 $\frac{1}{8}$ x4

What is the price of these Kodacolor Prints?

All sizes of Kodacolor Prints retail at 40 cents each—regardless of size of negative or number of prints ordered. Minimum charge per order, \$1, except when prints are ordered at time of film processing.

Each camera is a Brownie Reflex, Kodak Duo Six-20, or other split-frame camera, each of good negatives will be printed, separately, to 2 $\frac{3}{8}$ magnification—retail price 40 cents each.

How are prints ordered?

When you take the exposed roll of Kodacolor Film to your dealer, you order "one each of the good ones," or "two each," just as when you order black-and-white snapshot prints. Your dealer sends the roll to Kodak for processing and printing. Developed films and prints are returned to your dealer's store, where you call for them.

Can prints be ordered from Kodacolor negatives after the film has been processed and returned to you?

Yes, Kodacolor negatives may be sent in at any time—through your dealer. Minimum charge per order, \$1.

How can Kodacolor negatives be used for color printability?

In Kodacolor negatives the colors themselves are the reverse of those in the subject; therefore, it is difficult to judge negative's color values or to anticipate colors of the positive print. But if negative appears

to be a good one—sharp and with good range of density—it should yield a satisfactory Kodacolor Print.

Which negatives in a Kodacolor roll will be printed?

Through their experience with thousands of Kodacolor negatives and prints, Kodak's printer operators know how to judge Kodacolor negatives. They will make the desired number of prints from all negatives that will produce satisfactory results.

They cannot, however, choose specific pictures for you—or make a special number of prints of a certain subject in the roll. Don't order "two prints of the picture of four people"... or "two prints of the one with the best expression." Order "one each" or "two each" of the printable negatives.

Can you order prints yourself, directly from Rochester?

No. Kodacolor Film for developing and printing—and developed negatives sent in for prints—must be handled through a dealer.

Can Kodacolor Prints be mounted in an album?

Yes, the ordinary adhesives and normal heat used in dry-mounting prints will not damage Kodacolor Prints.

Can Kodacolor be used with Photoflood and Photoflash lamps?

Existing Photoflood lamps and filters will not give good color quality. However, since Kodacolor Film is color-balanced for sunlight, it is possible to use the special blue-tinted No. 21B Photoflash lamp.

Can portrait attachments and filters be used?

Portrait attachments and other supplementary lenses can be used with Kodacolor just as with black-and-white film. Filters should not be used.

What is the surface or finish of the Kodacolor Print?

Kodacolor Prints have a glossy surface.

Can black-and-white prints be made from Kodacolor negatives?

Yes. Sharp Kodacolor negatives will make quite satisfactory black-and-white prints.

Your Indulgence, Please

THE Eastman Kodak Company realizes that in Kodacolor it is offering something that almost every picture maker wants.

A big program of this kind, introducing not only a sensational new product but an equally sensational new processing system, means that peak production cannot be realized at the start.

As a result, for the present, the distribution of Kodacolor Film must be limited—Kodacolor Film processing must be controlled. For the present, Kodak dealers won't have all the Kodacolor Film they want—or you want.

This situation will gradually change for the better, of course, but it will probably not be materially affected for some time to come; and it is only fair to tell you. Consequently, until these early limitations are removed, "Your indulgence, please." We shall do our best.

EASTMAN KODAK COMPANY

Eastman's epoch-making new KODACOLOR ROLL FILM

Monthly Competitions

Competition Suspended

The announcement, on another page, of the merging of Camera Craft and American Photography magazines, marks the ending of these competitions.

They have been a source of much personal pleasure and stimulation to the editor of this magazine. He has always been grateful and appreciative of the fine support which readers have given to this department. We have had the satisfaction and the honor of showing some fine pictures here.

There does not appear to be much point in offering the customary annual Club Trophy Cup awards on the basis of so short a period of competition, so that it not being done. All prints which are received for, what would have been the April competition, will be returned postage prepaid.

Scoring For Club Trophy Cups

The following won points for their respective clubs in the Advanced Class: M. M. Deaderick, for the Channel City Camera Club; Anne Pilger Dewey, for the Fort Dearborn Camera Club; W. Ellis Teas, for the Pasadena "Y" Camera Club; C. K. Wu, for the Photographic Society of Hong Kong; and Axel Bahnsen, for the Yellow Springs Camera Club.

The following won points for their respective clubs in the Amateur Class: C. N. Tigrett, for the Bluff City Camera Club; Dr. T. H. Cheavens, for the Dallas Pictorialists; Marjorie Duryee, for the Everett Camera Club; and Arlene Ragsdale, for the Rothschild Camera Clinic.

Mr. F. D. Baldinger, has not indicated any club affiliation.

Contributing Clubs

Blue Bell Camera Club (Detroit, Mich.)	Lancaster Camera Club (Pa.)
Bluff City Camera Club (Memphis, Tenn.)	Mission Camera Club (San Francisco)
California Camera Club (San Francisco)	Missoula Camera Club (Mont.)
Channel City Camera Club (Santa Barbara, Calif.)	Pasadena "Y" Camera Club (Calif.)
Chicago Camera Associates	Photographic Society of Hong Kong (China)
Cleveland Photographic Society	Queen City Pictorialists (Cincinnati, Ohio)
Dallas Pictorialists (Texas)	Rothschild Camera Clinic (Los Angeles, Calif.)
Detroit Camera Club	Salt Lake City Camera Club (Utah)
Everett Camera Club (Wash.)	Sierra Camera Club (Sacramento, Calif.)
Fort Dearborn Camera Club (Chicago, Ill.)	Taft Camera Club (Calif.)
Kamera Kranks (Durham, Calif.)	Women's Photographic Society of Cleveland
	Yellow Springs Camera Club (Ohio)

Standing of Clubs

Large Club—Advanced Class

Pictorial Photographers of America.....	5
Photographic Guild of Detroit.....	4
Fort Dearborn Camera Club.....	3

Small Clubs—Advanced Class

Pasadena "Y" Camera Club.....	10
Photographic Society of Hong Kong.....	6
Yellow Springs Camera Club.....	5
Channel City Camera Club.....	2
Detroit Camera Club.....	2

Large Clubs—Amateur Class

Photographic Society of San Francisco.....	5
Camera Club of Oakland.....	4

Small Clubs—Amateur Class

Dallas Pictorialists	6
Foothill Camera Club.....	6
Bluff City Camera Club.....	5
Rothschild Camera Clinic.....	5
San Antonio Pictorial Camera Club.....	4
San Jose Camera Club.....	4
Everett Camera Club.....	3
Camera Club of Maryland.....	2

(Continued from page 137)

brightnesses. A larger print may be necessary for proper rendition of such detail; yet if the salon committee insists on 16 x 20 mounts, a 14 x 17 horizontal print must either to be mounted with bled edges or horizontally on the mount which is usually awkward both to hang and to look at.

Mr. Desmé is right—a print should be judged on its beauty and quality. Yet he will not do this himself—he says he will penalize a print “bled” on the edges. What has this to do with the print itself?

Very truly yours,
Robert H. Griffith

Chicago, Ill.

Club Notes

Forthcoming Exhibitions

Second St. Louis International Salon of Photography. Address St. Louis International Salon of Photography, P. O. Box 898, St. Louis, Mo. Closing date March 2nd, entry fee \$1.00, limit four prints. March 21st to April 6th at the City Art Museum, St. Louis, Mo.

43rd Annual Photographic Salon of the Portland Society for Art. Address, Sweat Memorial Museum, 111 High St., Portland, Me. Closing date March 10, 1942, entry fee \$1.00, limit 4 prints. April 5-May 2, 1942.

International Prairie Salon of Photography, sponsored by the Fargo Camera Club. Address Henry Bogenrief, Salon Chairman, Waldorf Hotel, Fargo, N.D. Closing date March 16, 1942. Entry fee \$1.00, limit 4 prints.

22nd Annual American Photography Competition. Address American Photography, 353 Newbury St., Boston, Mass. Closing date, March 20, 1942. No entry fee, no limit. Twelve cash awards of \$25.00 each, eighty Honorable Mentions of the value of \$2.50.

5th Annual Bridgeton Salon. Address, A. R. McAllister, 230 E. Commerce St., Bridgeton, N. J. Closing date, March 21, 1942. Entry fee \$1.00, limit four prints. April 6-19, 1942.

The Fifth Annual Salon of Photography, of the Camera Club of Fitchburg. Address Elsie L. Lowe, Salon Chairman, Pearl Hill Road, Fitchburg, Mass. Closing date March 25, 1942. Entry fee \$1.00, limit 4 prints. Fitchburg Art Center, April 5 to 29, 1942.

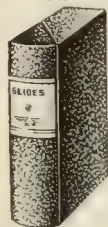
3rd Annual Granite State Salon. Address, Miss Ramona Williams, Hamilton-Smith Library, Durham, N. H. Closing date March 28, 1942. Entry fee one 25c U.S. Defense Stamp per print, no limit.

9th International Milwaukee Salon. Address, Wm. J. Meyer, 740 No. Plankinton Ave., Milwaukee, Wisc. Closing date, April 10, 1942. Entry fee \$1.00, limit four prints. May 1-15, 1942.

The Fourth Annual Salon of Photography of the City of Racine, sponsored by the Racine Camera Club. Address Gene Weins, Salon Chairman, c/o Wustum Museum of

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Fine Arts, Racine, Wis. Closing date April 15, 1942. Entry fee \$1.00, limit 4 prints or 6 color slides, 2x2". The Charles A. Wustum Museum of Fine Arts, May 1 to 31, 1942.

The Fifth Annual Rocky Mountain Salon, sponsored by The Denver Photographic Society. Address Basil Leonoff, Salon Chairman, 1435 Milwaukee St., Denver, Colo. Closing date April 15, 1942. Entry fee \$1.00, limit 4 prints. Denver Art Museum, May 1 to 15, 1942.

The Third Toledo International Photographic Salon, sponsored by the Toledo Camera Club. Address Carl F. Reupsch, Salon Chairman, Toledo Museum of Art, Toledo, Ohio. Closing date April 15, 1942. Entry fee \$1.00, limit 4 prints. The Toledo Museum of Art, May 3 to 31, 1942.

Cincinnati Salon of Photography. Address, Warren R. Oder, Jr., 5006 Wetsel Ave., Cincinnati, Ohio. Closing date, April 21, 1942. Entry fee \$1.00, limit 4 prints. May 15-June 5, 1942.

Second Paducah International Salon of Photography. Address, E. E. Curtis, Box 203, Paducah, Ky. Closing date April 21, 1942. Entry fee \$1.00, limit 4 prints. May 17-23, 1942.

Oklahoma International Salon of Photography. Address E. M. Swan, Secretary, 1115 N.W. 41st St., Oklahoma City, Okla. Closing date April 23rd, entry fee \$1.00, limit four prints. May 10th to 28th at Oklahoma City Municipal Auditorium Art Gallery, Oklahoma City, Okla.

2nd Annual Ozark Salon. Address, Marv K. Hancock, 1105 Brower St., Springfield St., Springfield, Mo. Closing date, May 1, 1942. Entry fee \$1.00, limit 4 prints. May 15-31, 1942. All viewing Salon will be required to purchase 25c Defense Stamp, which they retain.

Montreal International Salon. Address Mrs. R. Caron, 77 Sunnyside Ave., Westmount, Que., Canada. Closing date May 1, 1942. Entry fee \$1.00. May 9-24, 1942.

Hartford International Salon of Photography. Address Salon Committee, Hartford International Salon of Photography, Box 1822, Hartford, Conn. Closing date May 4th, entry fee \$1.00, limit four prints. May 26th to June 14th at the Avery Memorial Art Museum, Hartford, Conn.

5th May Salon of the Springfield Camera Club. Address, T. M. McMillen, 109 No. Limestone St., Springfield, Ohio. Closing date May 9, 1942. Entry fee \$1.00, limit 4 prints. May 16-23, 1942.

Chicago Historical Society's 1st Annual International Salon. Address Chicago Historical Society, Photo Dept. Clark St., at North Ave., Chicago, Ill. Closing date May 15, 1942. Entry fee \$1.00 for 4 prints or 6 Kodachromes. No restrictions on subject matter. June 1-Sept. 7, 1942.

The Eleventh Annual Detroit International Salon of Photography. Address Isadore Berger, Salon Chairman, c/o Detroit Art Institute, Detroit, Mich. Closing date May 20, 1942. Detroit Art Institute, June 9 to 28, 1942.

4th Annual National Exhibition of the Rockefeller Center Camera Club. Address, Dr. A. J. Hassler, 243 W. 98th St., New York, N.Y. Closing date June 1, 1942. Entry fee \$1.00, limit 4 prints, honors in six classes. June 14-28, 1942.

In recognition of growing interest in color
182

slides, many clubs are beginning to have an occasional color slide contest. Finding a competent judge for these contests is more of a problem than finding print judges because the slide field is so new. Therefore the Chicago Color Camera Club (which by its specialized programs, classes, and competitions has developed a number of qualified judges) offers to judge slides for any club in the country. Slides must be sent prepaid and will be returned collect. Before sending slides, write to R. B. Horner, 846 Bradley Place, Chicago, Illinois. There will be no cost for this service.

Photo Instruction

The extremely popular spring series of courses conducted by P. Douglas Anderson, F.R.P.S., under the auspices of the University of California Extension Division, begin late in March, as follows:

At 540 Powell St., San Francisco, Calif. Photography, 803A, Beginning Monday, April 6th, 7 P.M. to 9 P.M.

Pictorial Photography and Composition, Beginning Thursday, March 26th, 7 P.M. to 9 P.M.

Kodachrome Photography. Beginning Tuesday, March 31st, 7 P.M. to 9 P.M.

At 1730 Franklin St., Oakland, Calif.

Kodachrome Photography. Beginning March 25th, 4 P.M. to 6 P.M. and 7 P.M. to 9 P.M.

Pictorial Photography and Composition. Beginning Friday, March 27th, 7 P.M. to 9 P.M.

Each course runs for ten weeks, the fee is nominal, and the first meeting of each course may be attended free of charge.

The Photo League, 31 E. 21st St., New York, N. Y., is offering a particularly excellent series of courses in their spring semester beginning early in March. A brochure giving full details may be had from the above address.

Nestor Barrett, co-author of *How to Build and Equip a Modern Darkroom*, and well known writer for the photographic press in general, will conduct a ten-weeks course in Motion Picture Photography at the Adult Education Center, 7th and Fernando Sts., San Jose, Calif. Course begins on March 16th, 7 P.M. to 9 P.M. and is held on succeeding Monday evenings. Only charge is a \$1.00 registration fee.

The spring term of the California Camera Club's School of Photography opens on March 6th and runs until April 24th, with classes meeting each Friday night from 8 P.M. to 10 P.M. Tuition fee is \$5.00 and full information can be obtained by writing to the club at 45 Polk St., San Francisco, Calif.

The Chicago Color Camera Club will again present its course in Color Slide Photography, beginning March 26. Classes will meet each week for six weeks and subject material will include color exposure, color composition, indoor color photography, slide titling, a field trip, etc. For enrollment form and information, write to H. J. Johnson, 1614 W. Adams, Chicago, Ill.

New Clubs

The Navajo Trail Camera Club of southern Colorado is one of the highest camera clubs in the country. It is a mile and a half high. Its valley home is surrounded by

C A M E R A C R A F T

mountains, many of whose peaks reach over 13,000 feet.

The Club is starting its second season with ambitious plans for making a pictorial story of that region. The San Luis Valley was named by early Spanish explorers, who, according to tradition, visited it early in the sixteenth century.

Meetings are held by the Club on the first Thursday and third Monday each month in Monte Vista. Officers recently elected are President John C. Baird, Vice-Pres. Mrs. John Hynds, Sec.-Treas. Ben Knutson. The President appointed H. D. Stanger chairman of print committee and Mrs. L. F. Greene chairman of program committee. A print competition is held at each meeting.

Museum Activities

The San Francisco Museum of Art considers the exhibiting, encouragement and discussion of photography as an important part of its art appreciation and educational program. Photographers have been quick to respond to the various activities in the field of Photography which consists of three projects.

1. An Annual Salon (in the Fall).
2. A continuous series of small exhibitions changing fortnightly.
3. The Photo Forum.

Regarding the first two, these of course are open to all photographers either as individuals or in groups.

The Photo Forum meets every Monday at 8 p. m., and invites all who are interested in showing their work for expert criticism and suggestions to register their work, prints, slides or 8mm. or 16mm. movies. The finest screen and projectors are used. Talks by authorities are given, followed by questions and answers. The works brought or sent in for showing are projected before a large audience, and are criticized by expert judges who also give suggestions and award a first and second prize. Each evening an instructional film on photography or a professional travelogue film is shown. Sometimes a camera club will take over for the evening and show their best work in all media and present talks by its ablest speakers.

Before the declaration of war, the nightly attendance averaged 125, then after December 7 it dropped to 75, but now it is growing, and is more popular than ever.

Many exhibitors whose works have been criticized have come back again with their improved jobs and have captured first and second prizes. This, of course, fulfills the prime purpose of the Photo Forum, which is to help photographers get more satisfaction and real fun from their work through increased skill and judgment. One instance of this was of a practicing dentist who used photography to illustrate, in the form of color slides, the causes and effects of malocclusion (bad biting, to the layman). The first time he showed slides the judges suggested that he coordinate them by showing a sequence of cause-effect-remedy, and to make a few slides of explanatory titles. This he did, and came back to the Photo Forum again two months later, and walked away with the First Prize.



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A scientific-unbiased-complete analysis of developers of all kinds . . . for negatives and papers.

Reliable information on the new fine grain developers with photomicrographs showing comparative grain structure. Comparisons of effective emulsion speed and negative quality.

This book will give the reader a real understanding of the theory as well as the practice of developing, including the meaning and use of many technical terms, such as "reduction potential, pH, gamma, gradation, physical action," etc.

Details on special developing processes. . . . Sections on modern darkroom technique and on how to test a developer for oneself. . . . All the important formulas collected in one book . . . compared from an unbiased, scientific viewpoint . . . with a discussion of what each developer is good for. Modern fine grain formulas and others, published and secret alike, are considered in this illuminating way.

Print developers are thoroughly considered with a discussion of how each one affects the characteristics, such as, the tone, contrast, etc., of a print.

The author, Edmund W. Lowe, is a chemist who has had a large share in bringing the art of development to its present state of perfection. His scientific knowledge and the results of his personal experiments with almost one hundred formulas and their variations are made available to you in this book. Any photographer who wants to understand development as well as follow "cook-book" directions, must read **WHAT YOU WANT TO KNOW ABOUT DEVELOPERS**.

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All who are interested in showing their work should write the San Francisco Museum of Art, Civic Center, San Francisco, Attention Thomas Hughes. State the medium (print, slides, 8mm. or 16mm. movies), number of prints, slides or feet of film and the subject matter and approximate date desired. All material is returned promptly after being shown.

A Call to Photographers—The Museum of Modern Art, 11 West 53rd St., New York City, in the present emergency is conducting through the camera clubs of the country a survey of photographers who want to volunteer part-time service to Government agencies. Colonel Edward Steichen, Consultant in Photography to the Office for Emergency Management, points out in the following statement the way your society can cooperate.

Photographers in all parts of the United States are earnestly asking how they can help in the war emergency.

Thousands of great and small photographic jobs in connection with the work of the numerous civilian organizations will present themselves all over the country during the course of the war.

We must anticipate and be prepared to do these jobs when and wherever they may arise.

If we are to get the square pegs in the square holes and the round pegs in the round holes, then we, the photographers of the United States, must promptly survey our status and our resources so that a united effort can be made to use our photographic knowledge and experience in every possible channel.

There is no time or need to create a new society, for the job can be done efficiently and at once by the many societies and clubs already established in all parts of the country.

These organizations, by pulling together, can immediately create and make available a great reservoir of skilled and resourceful American photographers, amateur and professional, eager to volunteer their services for occasional photographic assignments.

It is urged that a meeting of your society or its board of directors be called at once to consider this project and to appoint a committee to make an immediate survey of all skilled and experienced local photographers who wish to volunteer part-time photographic service to the local state or federal government agencies.

This survey should include non-members as well as members of your club.

The committee should prepare a file of such volunteers divided into the classes listed on a card obtainable from the Museum. The total number of volunteers and the number in each special field should be entered on the card, which should be returned promptly to the Museum. Data gathered from these cards will be made available by the Museum to all official civilian wartime agencies.

If there are several clubs in your community, the formation of a general central executive committee with a representative from each club committee will be advisable.

It is recommended that photographers keep up their club activities and their con-

tacts with the photographic press, for camera clubs all over the country can become the wartime photographic centers of their communities and the direct channels through which our collective effort can swiftly be brought into efficient operation as one of the Nation's many implements of Victory.

I hope your organization will act with all possible speed and thoroughness and that the collaboration and cooperation of the Photographic Societies and Clubs will be unanimous.

Edward Steichen

Notes and Comments Announcements

Amateurs and professionals who require an ultra-fine-grain film developer in quantities for large-size developing tanks now will be able to purchase Agfa Ansco's Finex in quart bottles. This remarkable, ready-to-use developer produces extremely fine grain with no loss in the inherent film speed.

Through the recommended laboratory replenishing system, the 32 oz. of Finex permits a total of 60 rolls of 36-exposure miniature-camera film (35mm.) or 60 rolls of B2-size (120) rolls, or equivalent amount, to be developed. This is accomplished without increasing the developing time which remains constant throughout the entire life of the developer. The label on the 32 oz. Finex contains a chart which may be used to keep an accurate check on the number of square inches of film that has been processed.

The economical quart-size bottle is sold separately from the Finex Kit and is complete with a 25-page instruction booklet plus a handy 2 oz. glass graduate which facilitates accurate replenishing. It is available at regular photographic dealers at \$1.75. The 8 oz. size Finex Replenisher may also be purchased separately at 75 cents. Finex Developer and Replenisher are available in 5-gallon sizes on special order.

At a meeting of the Board of Directors of Defender Photo Supply Co., Inc., held on Tuesday, January 27, 1942, Mr. Karl Teo Molin was elected a vice president and Mr. Leonard R. Moore was elected a director.

Mr. Molin was born in Tammerfors, Finland, and received his technical education at the Swedish University of Abo in that country, graduating in chemistry and chemical engineering. He came to Rochester in 1924 and was immediately employed by Defender. He has been Superintendent of Sensitized Materials Production since 1936, and was elected a director in 1939. He is a member of the University Club, Rochester Yacht Club and the Chamber of Commerce. He resides at 300 San Gabriel Drive.

Mr. Moore was born in Sittingbourne, Kent, England, where he received his education as an accountant. He came to America in 1912, and entered the photographic in-

dustry in the employ of the Anseo Company in Binghamton. In 1924 he joined Defender in the capacity of Cost Accountant and Office Manager. He was made Assistant Secretary-Treasurer in 1927, and elected Secretary and Treasurer in 1939. He is a Mason, a Director and Assistant Treasurer of the Rotary Club, member and trustee of Brook-Lea Country Club, Rochester Cost Accountants' Association, Purchasing Agents' Association, and a member of the Chamber of Commerce. Mr. Moore resides at 292 Sherwood Ave.

The Defender Directors also declared the regular quarterly dividend of \$1.50 per share on the preferred stock, and 15 cents per share on the common stock, payable March 31 to stockholders of record March 24. The results of the company's 1941 operations will not be published until the annual stockholders' meeting to be held March 10.

The other officers of the company are L. Dudley Field, President, and Rowland S. Potter, Vice President. Other members of the Board are J. Craig Powers, Sherwood W. Smith and Charles P. Schlegel. F. Clifford Lyons is Assistant Secretary-Treasurer.

Ninety-three per cent of all the Kodak employees in Rochester, from forty-year veterans to the newest defense-job assemblers, have responded to the call, "Any Bonds Today?"

Nineteen thousand of the people at Kodak Park, the Camera Works, Hawk-Eye, and the Kodak Office had, by the end of last week, signed up for United States Defense Bonds on the pay-roll savings plan or were buying bonds in some other systematic way, according to a tabulation completed yesterday.

The percentage of Kodak employees buying Defense Bonds by the pay-roll plan was 89 per cent. An additional 4.1 per cent were purchasing bonds in other ways, which brought the Kodak-employee percentage total to 93.1.

The percentages of employees in the several Eastman plants buying bonds by the pay-roll method is shown in this table:

Kodak Park.....	90.0%
Camera Works.....	90.8
Hawk-Eye	82.7
Kodak Office.....	83.3

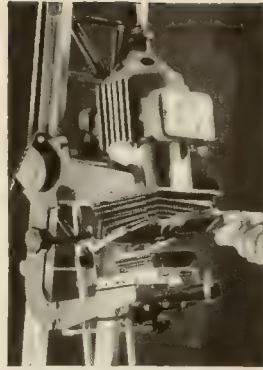
Including other methods of payment, all four Eastman establishments were above 90 per cent.

The national need for bond sales was first pointed out at Kodak last fall by a letter to all employees from Frank W. Lovejoy, chairman of the board, and the pay-roll plan for buying was established. In response, more than 25 per cent of the Kodak people in the city undertook bond purchases last year.

In January, with America in the war, the intensified need was called to the attention of the employees. Their whole-hearted response has kept the total climbing until, after the past two weeks, it reached 93 per cent.

Directors of the Eastman Kodak Company declared a \$1.50 quarterly dividend on the company's common stock today, and at the same meeting in the Kodak Office elected Adolph Stuber a vice president of the company and Thomas J. McCarrick an assistant comptroller.

MARCH, 1942



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Prior to 1930 Mr. Stuber was manager of the Camera Works. In that year he was made assistant vice president, since which time his duties have related to the sales and advertising departments, of which Herman C. Sievers is vice president in charge. In the office of vice president Mr. Stuber will continue his present duties in such departments.

Mr. McCarrick has for seven years been on the comptroller's staff, the same department in which he will exercise his increased responsibilities as assistant comptroller.

The contact printer, that ugly duckling of photo processing, has been streamlined, modernized, and made increasingly efficient in the new compact Kodak All-Metal Printer Model 2 just announced by the Eastman Kodak Company.

Designed for making contact prints on Azo, Velox, and other contact printing papers, the Model 2 All-Metal Printer has many features which will appeal to the photographer who develops and prints his own. It accepts negatives ranging in size from 35mm. up to 4 x 5 1/2 inches. It has four easily adjustable, inch-wide margin masks. It permits strip printing of many popular sized roll films, and it has provision for the introduction of printing controls such as ground or opal glass.

Hardly larger than a small packing box (actual dimensions are 10 x 8 x 6 inches), but fully as efficient as much bigger professional printers, the Model 2 All-Metal Printer includes as a supplementary feature ruby Kodaloid scales which are illuminated from below by the printer's ruby safelight. These white-etched scales can be easily read under any conditions, and make it a simple matter to obtain exact margin widths at all times.

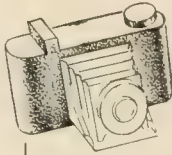
From this it is evident that this contact printer is an amazingly complete unit for professional as well as amateur purposes. But users of 35mm., Nos. 127, 620 and 616 film, will find it particularly useful since the machine is designed to allow strip printing of those films without having to cut them into individual negatives.

As for additional printing control, on the left side of the Model 2 All-Metal Printer is a slot through which diffusing materials such as ground or opal glass—can be introduced to reduce the intensity of the printing light. This is necessary when an extremely rapid printing paper, such as Vitava Opal, is used, or when making duplicate negatives on Kodak Autopositive Film.

In every respect the Model 2 All-Metal Printer is a precise and attractive darkroom unit. It is finished with a gray wrinkle coating. It retails complete at \$19.75.

Another substantial reduction affecting the list prices of G-E Mazda fluorescent lamps, effective January 1, was announced at Nela Park by General Electric's lamp department.

Price reductions affecting the most popular F (fluorescent) lamps in the G-E line, for example, are the following daylight and white types: 14-watt T-12 from 90 cents to 80 cents; 15-watt T-8 from 75 cents to 65 cents; 15-watt T-12 from 95 cents to 80 cents; 20-watt T-12 from 95 cents to 80 cents; 30-watt T-8 from 95 cents to 80 cents;



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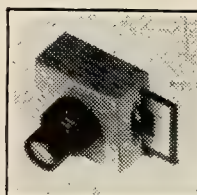
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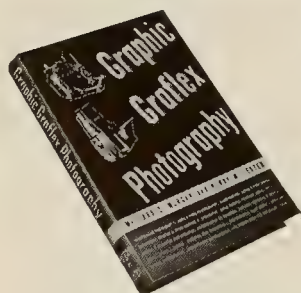
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40-watt T-12 from \$1.35 to \$1.15; and 100-watt T-17 from \$3.00 to \$2.60.

Also announced were substantial price reductions affecting soft white and colored G-E Mazda F lamps.

The reduction marks another step in the downward trend of the cost of Better Light for Better Sight. G-E Mazda F lamps, since they were first introduced in 1938, have been reduced in price as much as 60 per cent.

The new drop in the price of these lamps is held as being especially significant now when so many of them are being used to supply cool, efficient "indoor daylight" for defense industries . . . to spread production, cut down waste and protect the eyesight of defense workers.

Nela Park officials attribute the price reduction to the growing demand for G-E Mazda fluorescent lamps in all fields. This, they say, has resulted in many manufacturing economies in General Electric's fluorescent lamp factories. In line with G-E lamp department's traditional policy, these savings are again being passed on to consumers through reduced prices of the product.

A new **Flash King Synchronizer** for use at all speeds on handset shutter type cameras utilizing SM G-E flash lamps is now being distributed by George Murphy, Inc., 57 East 9th Street, New York City.

The new Flash King synchronizes miniature focal plane shutters using No. 6 G-E flash lamps, at speeds ranging from 1/100 second to top speeds. In addition, it synchronizes at all speeds on cameras employing self-acting ready-set shutters used with No. 5 G-E lamps, and at speeds from 1 second to 1/50 second on cameras with handset shutters.

Each model SM Flash King is tested and guaranteed to synchronize any between-the-lens cocking type of shutter that the Flash King and the cable release will trip. Used with the correct lamp, it is guaranteed to synchronize at all speeds to the top speed of the camera.

Flash King Synchronizers are reasonably priced at \$7.00.

Photographs Wanted—Ed Wolff & Associates, 428 Taylor Building, Rochester, New York, advertising agency for Wollensak Optical Company, is interested in purchasing prints for use in Wollensak advertising.

To deserve consideration, prints should be suitable to cover a full magazine page, and should have been made and/or enlarged through a Wollensak lens. Subjects may be what the artist prefers, but should exhibit qualities reflecting favorably on the lens used. Submissions should measure 10" x 8" or larger, and enlargements which have won recognition or awards are wanted.

Price in the case of acceptable prints will be established by negotiation. Unpurchased submissions will be returned.

Designed for blackout lighting in air raids, the new Wabash Blackout bulb just announced by the Wabash Appliance Corporation, Brooklyn, N. Y., provides down-lighting in a soft beam of blue light that is safe for indoor visibility during blackouts. The bulb is lined inside with a pure silver reflector lining that hides all filament



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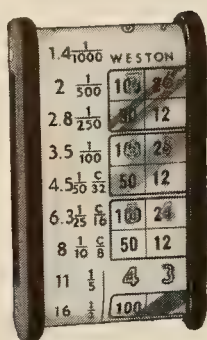
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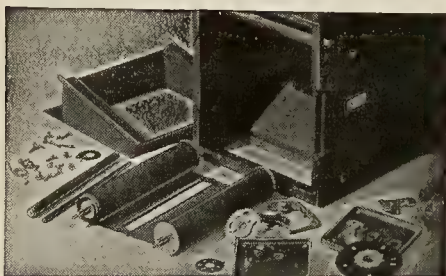
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glare and projects the light downward. Light leaks are prevented by a black silicate coating that covers the bulb up to the extreme lighting end, which is a deep blue. The new bulb consumes 25 watts and will list at 45 cents.

The Camera Hospital has rendered a popular and reliable repair and construction service to Central California photographers for many a year. It is now moving from 717 Market St. to new and modern quarters at 233 Post St., San Francisco, Calif. Bill Peters will be right on the job to offer expert advice on any repair or special construction problem.

James H. Smith & Sons Corp., 324 Colfax St., Griffith, Ind., have recently developed a new type of reflector surface known as "Diffuser-Flector". This delivers an intense, extremely even light requiring no diffusing screen. This new development has been incorporated in the Victor "250-S" Clamp Model Reflector, which uses No. 2 photoflood lamps and sells for \$4.15. See it at your dealer's or write to above address for particulars.

Artistic and Mechanical Lithographers Sought by Government—Maps are implements of war! Topographic maps are needed for military operations—nautical charts for our Navy and Merchant Marine—aeronautical charts for military aviation and for pilot training. Map and chart making agencies of the Government are seeking skilled lithographers to produce the maps needed by our Army, Navy and Merchant Marine.

The Civil Service Commission just announced an examination to secure lithographers (artistic or mechanical) for positions paying from \$1440 to \$2000 a year. Because of the demand for qualified eligibles, applications will be accepted by the Commission until further notice. A written test will not be given; applicants will be rated on their education and experience. If you are qualified and available, apply today!

For all grades, applicants must have had nine months skilled, paid experience in a lithographic shop, in one or more operations used in lithographic reproduction work. In addition to this experience, for all but the junior grade positions, additional experience is required in one specialized phase of lithographic reproduction work, such as negative engraving, platemaking, work on plates or stones, press work, or other operations.

For the nine months skilled experience required, applicants may substitute (6) six months' course at a lithographic school; (b) one year college study which included six semester hours in lithography; (c) one year appropriate night school or technical institute study; or (d) a U. S. approved defense training course in lithography. Applications will be accepted from persons who are now taking the college or technical institute study.

Persons who have been rated eligible under Announcement No. 148 for Artistic Lithographer issued October 31, 1940, need not apply for this examination.

Examination announcements and application forms may be obtained at first and second-class post offices or from the Civil Service Commission, Washington, D. C.

MARCH, 1942

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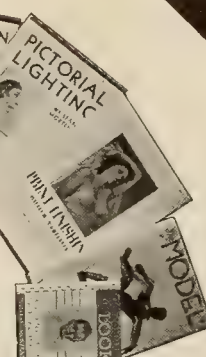
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